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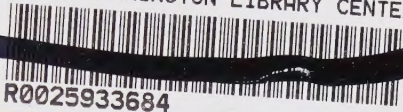
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THE JUNIOR HIGH SCHOOL AT WORK

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FOREWORD

The experiment which is described in the following pages is one which has been carried on in an actual school situation. This means, therefore, as all school superintendents well know, that on many occasions it had to be pushed to the background by the pressure of some one or another of the hundreds of problems which daily arise in a school system enrolling between five and six thousand children, and one hundred eighty-five teachers (1923-1924). The course of its development may be subject to criticism on the part of some, especially if they have in mind an ideal experimental school where conditions could be adjusted more or less at the will of the experimenter. Although the type of research which is carried on in the observation and practice schools of our teachers colleges is most valuable and necessary, it should be accompanied by constructive, worth while experiments in real school situations where the acid test of utility as well as desirability can be applied daily.

On the other hand, taxpayers, of course, would never agree to the expense or the advisability of turning the public schools into experimental laboratories. Neither would leaders in educational thought recommend an extreme policy in this respect. But most forward looking people in education today would subscribe to the opinion that much more experimentation than is at present attempted could be introduced into the public schools with profit both to the children and to the taxpayers.

This five-year experiment, then, represents an effort to incorporate what seems to be the best founded theories regarding junior high school grades into a more or less typical American school situation. I sincerely trust that even with its scientific incompleteness it may be suggestive to the school men and women in the field, of more and better experiments along the same lines.

I wish to make grateful acknowledgment to Dr. Thomas H. Briggs for advice, guidance, and inspiration, during the entire

five years of the experiment and to Dr. Rudolph Pintner and Dr. J. R. McGaughy for helpful and constructive criticism of many phases of the experiment and of the manuscript. I desire also to express my sincere appreciation to Dr. George D. Strayer and Dr. N. L. Engelhardt for their friendly encouragement and valuable suggestions regarding the administrative features of the study and to the Board of Education of Okmulgee and especially its president, Dr. S. B. Leslie, for their sympathetic understanding and their constant assistance in interpreting the program to the citizens of the community.

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THE JUNIOR HIGH SCHOOL AT WORK

CHAPTER I

CURRENT OPINIONS AND THEORIES

BEHIND every great educational movement there has been, of course, a theory. The movement which is resulting in the breaking up of the traditional 8-4 plan in the public schools of America, slow at first, but increasing in momentum, is evidence (1) of the dissatisfaction with the present scheme of things, and (2) of the working out of a new theory. With the hundreds of junior high schools and six-year high schools springing into existence all over the country, the public is well justified in asking their purpose. What are they supposed to do? Why have they been established? Let us examine the statements of some of the authorities in this field.

Briggs¹ says:

Beyond the minimum of education necessary for all normal citizens in a democracy, a minimum that can easily be provided in the six-year elementary school, each individual should be developed according to his interests, his aptitudes, his capacities, and his abilities, whatever they may be, and to the extent of his power of assimilation.

In attempting to discover and provide for these individual interests, aptitudes, capacities and abilities, many difficulties have been encountered. The unparalleled increase in the enrollment in secondary schools has so widened the range of the abilities and interests with which we must deal, that school practice lags behind theory. Proctor,² Terman³ and others have shown that almost without exception no pupil with an intelligence quotient of less than .90, as measured by our present intelligence tests, can expect

¹ Thomas H. Briggs. "What Next in Secondary Education?" *The School Review*, Vol. XXX, No. 7, September 1922, p. 526.

² William Martin Proctor. *The Use of Psychological Tests in the Educational and Vocational Guidance of High School Pupils*. Public School Publishing Company, Bloomington, Ill., 1921, pp. 17-22.

³ Lewis M. Terman. "The Use of Intelligence Tests in the Grading of School Children." *Journal of Educational Research*, Vol. I, 1920, pp. 25-26.

to be graduated from the ordinary high school of today. This means, as Briggs⁴ has pointed out, that

The high school is excluding from its privileges not only practically all of the future workers with simple tools and materials, three-fourths of the future workers requiring considerable skill (such as carpenters, machinists and butchers), and one-half of the future workers requiring high grade skill and knowledge, but also one-fourth of those who in the past have become our workers with symbols and ideas.

In a democracy such as ours purports to be is there any justice in a high school program which caters to one class only, especially in view of the fact that this class comprises only a small percentage of the total population? Not only is the non-academically-minded pupil neglected, but the gifted child to whom we must look for leadership is often relegated to a life of mediocrity, since through the years of his schooling he is assigned only average tasks which seldom, if ever, cause him to exert all the powers he possesses.

In looking for a solution which will take due account of all the children of all the people, Briggs⁵ says:

Intelligence and aptitude tests with the proper kind of junior high school exploratory courses will go far toward making proper classifications.

and follows this statement with three principles, simple in their language, but far-reaching in their implications:⁶

1. The primary purpose of the school is to teach its pupils to do better the desirable things that they are most likely to do anyway.
2. Another duty of the school is to reveal higher types of activity and to make these desired and to an extent possible.
3. So far as possible, every subject should be organized so that it is valuable to the extent to which it is pursued.

Writing in another article,⁷ he explains these principles and lays down some purposes of the intermediate school, together with the effect the application of these principles and purposes would have upon present school practice:

The third purpose of the intermediate school is to explore by means of material in itself worth while, the interests, aptitudes and capacities

⁴ Thomas H. Briggs. "What Next in Secondary Education?" *The School Review*, Vol. XXX, No. 7, September 1922, pp. 526-527.

Ibid., p. 528.

Ibid., pp. 529-31.

⁷ Thomas H. Briggs. *The Junior High School*. Houghton-Mifflin Company, 1920, pp. 165-174.

of pupils. This purpose necessitates a much wider variety of offerings, primarily in "general" courses, than the traditional program of studies provides, and it proposes to begin its study of differences earlier and more deliberately. More than this, it demands that the material for exploration, so far as possible, be justified for other ends of education.

The fourth purpose of the intermediate school is to reveal to pupils by material otherwise justifiable, the possibilities in the major fields of learning.

The fifth purpose of the junior high school is to start each pupil on the career which as a result of the exploratory courses, he, his parents, and the school are convinced is most likely to be of profit to him and to the State.

As reported in *The Junior High School* by Briggs,⁸ the following appear most often in the lists of items included by sixty-eight individuals in defining junior high schools:

1. Provides for individual differences.
2. Provides for retention in school.
3. Provides for enriched curriculum.
4. Provides for exploration of interests, aptitudes and capacities.

Among the chief reasons most often given for the establishment of two hundred and sixty-six junior high schools appear the following:

1. To provide educational opportunities.
2. To increase retention.
3. To introduce pre-vocational work earlier.
4. To provide for earlier differentiation.
5. To provide conditions better suited for grades seven, eight and nine.

In speaking of the junior high school pupil, Briggs says:⁹

In order that he may be guided and enabled to live a life of fullness, a variety of subjects must make their contribution to his education. Hence the general acceptance in curricula-making of the principle of variety.

Koos shows¹⁰ that in statements made by educational leaders, recognition of individual differences were mentioned in 95 per cent of the cases as a peculiar function of the junior high school, and exploration for guidance in 75 per cent of the cases. He also shows that the tendencies to diversity of interests in children of

⁸ *Ibid.*, p. 49.

⁹ *Ibid.*, p. 160.

¹⁰ L. V. Koos. *The Junior High School*. Harcourt, Brace & Howe, Inc., 1920. Chap. 2.

this day—vocational, social, recreational, athletic, and the like, are multitudinous. He says:

Many of these interests are deserving of recognition in the educational process, especially as the pupil nears the time of taking his place in adult life and activities.

In discussing individual differences he says further:

Granted that there are differences among our pupils sufficiently important enough to be recognized, it follows that we must provide the machinery for their discovery. This proposition cannot be accomplished without a much enriched and enlarged program of study. . . .

Strayer,¹¹ in a commencement address in 1920, said:

Even if I were certain that my boy was to be a lawyer, I should want him to take some work in carpentry, a little in automobile repairing, some in the commercial department, and some in many other lines, in order that he might have a better understanding of and sympathy for, the work and ideals of other people.

Davis says:¹²

Of all the functions of the junior high school, that which seeks to aid pupils in discovering their own capacities and limitations, interests and distastes, powers and weaknesses, is, in the judgment of the writer, the most important. It is this function, above all others, that justifies the reorganization of schools on a new basis. Not that the traditional organization does not, to a certain degree, effect this purpose; but, at best, its attainments are less than is desirable . . . to afford them opportunities to browse in many fields of recorded endeavor; to permit them to try their strength in many different ways; to enable them to compete with other boys and girls of their own age; to permit them to initiate, organize and administer projects; to employ methods of teaching that challenge their best efforts in thought and action; to stimulate and develop their best instincts by encouraging self-expression, and by furnishing opportunities to see life as it is and to live it in school as ultimately it must be lived out of school—this is the work of the junior high school. To be sure, in making this exploration of a pupil's personality and individuality, the material used to accomplish the end should have a positive value; but if, as the Committee on the Reorganization of Secondary Education declares, "The purpose of democracy is so to organize society that each member may develop his personality primarily through activities designed for the well-being of his fellow members and of society as a whole,"¹³ then the exploratory material suitable for one pupil may be equally suitable for all—the single warn-

¹¹ George D. Strayer. Commencement address at Okmulgee, Okla. June 1920.

¹² Calvin O. Davis. *Junior High School Education*. World Book Company, Yonkers-on-Hudson, New York, 1924. pp. 99-100.

¹³ "Cardinal Principles of Secondary Education." Bulletin No. 35, p. 9, 1918.

ing being that every pupil should be given access to the general try-out courses and activities offered to others.

Van Denburg says:¹⁴

If we could only have a course of study for the seventh and eighth school years that made one of its chief aims training its pupils to find their own aptitudes, talents, and preferences for further work and study, we would have a course of study unquestionably superior to the traditional seventh and eighth year work. . . . The ideal junior high school is therefore a finding and a sorting school where pupils may, through actual experience, be led to make a more rational selection of their senior high school work, or their occupation in the world of industry, than would be otherwise possible. The claims for recognition of such a school, could it be brought into existence, needs no further defense.

The North Central Association of Secondary Schools and Colleges in 1918 adopted the following definition and statement of aims:

The junior high school shall normally include the seventh, eighth and ninth years of public school work. The junior high school organization and administration shall realize the following aims and purposes:

1. To continue through its instructional program the aims of public education in a democracy.
2. To reduce to the minimum the elimination of pupils by offering types of work best suited to their interests, needs and capacities.
3. To give the pupil an opportunity under systematic educational guidance to discover his dominant interests, capacities and limitations, with reference to his future vocational activities or the continuance of his education in higher schools.
4. To economize time through such organization and administration of subjects and courses both for those who will continue their education in higher schools and for those who will enter immediately into life's activities.

In 1924 this Association adopted among other standards the following:

The appropriate subjects to be offered by the junior high school are: English, mathematics, foreign language, history and civics, geography and elementary science, music, art, health education, vocational information, and practical arts for both boys and girls, including commercial subjects.

The program of studies shall be organized into a single curriculum with limited electives.

¹⁴ Joseph K. Van Denburg. *The Junior High School Idea*. Henry Holt and Company, New York, 1922. pp. 15-16.

a. Electives prior to the second semester of the eighth year are considered ill advised. Prior to this semester, exploration and review of subject matter should be provided by the content of courses and the administration of the curriculum and not by electives.

Instruction shall be departmentalized.

Many other educators in addition to those quoted have stated the purposes of the junior high school as they have seen them, but upon examining all the lists we find two that are common to practically all; namely, (1) the junior high school should offer an enriched curriculum, and (2) should assist in guiding pupils according to their interests, aptitudes, capacities, and abilities.

It follows then from (2) that the interests, aptitudes, capacities and abilities must in some way be discovered. Up to the present time, this has been attempted, if at all, by (1), subjective judgments, (2), psychological tests, (3), prognosis tests, and (4), tryout courses.

Many teachers have thought that they possessed some kind of superhuman power which enabled them to gauge the interests and abilities of their students so as to make guidance more or less an easy problem. This procedure is of course unscientific in every respect and would not be countenanced by trained thinkers. In the second place, there are those who hold that psychological tests are the panacea for all educational guidance ills, and that a proper application of these together with an intelligent interpretation of their results is all that is necessary for guidance. While psychological tests are factors which contribute no little valuable information for those engaged in guidance problems, most educators believe that they should be supplemented. Prognosis tests present a fertile field of possible supplementary material but their development has been but barely begun and it will take years to develop them in all subjects, even granting the possibility of development. To the writer's mind the best way of discovering interests, aptitudes, capacities and abilities is through the medium of trial courses, for even if we should have psychological and prognosis tests which would point conclusively to ability in certain subjects we would not yet be absolutely certain that this ability would be accompanied by interest. Is it not possible for one to have ability to do several subjects well and yet not have interest in all of them? Here of course we come face to face with the problem of whether a child is interested in a piece of work because

he has ability to do it or whether he has ability to do it because he is interested in it. A proper combination of judgments, psychological tests and prognosis tests to determine temperaments and abilities, followed by tryout courses offered for the purpose of ferretting out and nurturing interests, seems to be a much superior procedure.

An attempt is made in the following chapters to present what we believe to be the most extensive field experiment to date in enriching a curriculum by the use of exploratory courses offered for the purpose of ascertaining the bents, aptitudes, capacities, and abilities of the children concerned. Before presenting the experiment itself, however, a short resume of present conditions, together with some reasons for the growth of the broadening idea will be developed.

CHAPTER II

SOME REASONS FOR THE DEVELOPMENT OF THE BROADENING IDEA

IN THE first six grades of the public school there are certain skills and experiences which must be had by every child, if he is to become a good citizen and a worthy member of the home. While we should adopt a much broader method of developing these skills than is used at present, nevertheless the curricula of these grades must necessarily be more or less restricted to the development of those fundamental proficiencies and experiences which are absolutely essential to the present and future life of all children.

Under the existing scheme of things in the country at large, the work of the seventh and eighth grades differs very little from that of the first six so far as subjects studied are concerned. It is in these two upper grades that school mortality mounts highest, pupils dropping out by the thousands. One of the chief causes is probably the fact referred to above, that children are given no chance to broaden, even though their physical and mental age demands it, but are held rigidly and monotonously to the same kinds of tasks with which they have been employed during the first six grades.

A glance at life's situations reveals in an instant the fallacy of such training, and hence a very general agreement has arisen that a much broader curriculum must be installed at the beginning of the seventh grade if we are to really meet the child's needs and teach him, as Briggs suggests, ". . . to do in a better way the desirable things he is going to do anyway."¹ In considering the scope of desirable activities above the sixth grade we are appalled at its breadth, but our field is somewhat narrowed if we ask the question, Desirable for whom? At this point the whole field of differences in attitudes, aptitudes, abilities, interests, and appre-

¹ Thomas H. Briggs. "What Next in Secondary Education?" *The School Review*, Vol. XXX, No. 7, p. 529 (September 1922).

ciations presents itself. The ideal curriculum, of course, would be that which would guide each individual into that future course of study and life-work for which he is by nature and temperament best fitted.

Even a casual observer must admit that the curricula of our schools at present fall far short of this ideal, for they have been extremely narrow. Carlyle says, "The best educated man is the one who has touched life in the most places." In most of our public schools the child touches life in very few places, and in many instances has not been trained at all to do well the things which he will be called upon to accomplish in later life, much less to carry on in a better way his present every-day activities.

That the world has many misfits is a fact that has all too much supporting evidence. Daily there come to our attention cases of preachers who should have been lawyers, doctors who should have been bankers, and teachers who should be in other fields. A business man, who had been graduated from one of the leading institutions of the East, came into a superintendent's office the other day, and complained that he had tried several different lines only to find that he was not fitted for any of them. He was bitterly blaming his Alma Mater for not attempting to discover in his school days those things which he could successfully do. He envied a schoolman, he said, and wished he had continued pedagogical work after being graduated from college, in order that he might have been of service to the coming generations through the medium of teaching. His deep love for children, his active interest in civic affairs and things cultural, his clear diction, and his spotless character, all tended to show that he might have been highly successful had he been guided at the proper time into the teaching environment. Literally thousands are teaching school because chance has introduced them to one field only, and failed to make them acquainted with engineering, surgery, journalism and the like.

Square pegs in round holes; round pegs in square holes; an anomaly so common that sometimes we think it is almost a rule. This is indeed unfortunate for the economic and social laws are such that when once an individual has centered his attentions upon a profession or business for a period of five or ten years, it is next to impossible to make a change. Habit has done its work, and he is the slave of an unloved master.

But where can the blame be placed for this situation? Is not the world with its possibilities open to everyone? Has not each of us every opportunity to survey these possibilities and make a choice of his own? Is there anything to compel this young woman to teach when she would rather be a stenographer? Most of us would have ready answers for these questions, and in support of our conclusions we might point with pride to Carnegie, Ford, Edison, and others who have risen from the most menial tasks to positions of world power. Fortune was kind to them, for she happened to introduce each to his proper life-mate. Then, too, there is considerable truth in the statement that each of these men forced an introduction to the business which he preferred, but on the other hand, we could point to thousands of others in this same free country who have either failed or have attained only a modicum of success, for Fortune introduced them to a guest who proved to be not in the least interesting. True, there is nothing in our laws that compels one to a life of servitude in a distasteful field, but there is something in the organization of our public schools which has in many cases unintentionally prevented the getting together of the right individual and the right job.

Until ten years ago, the school systems of America, with very few exceptions, offered the youth of the country meagre opportunities for discovering their chief interests and bent. Even now, practically no idea of the possibilities of any profession or business can be gained save by an actual apprenticeship or through the professional schools after the sophomore year in the universities. Hence, in order to secure a glimpse of a business or a profession, it is necessary to do one of two things, drop out of school in order to enter the actual field, or continue a general course in school until the third year of college is reached. The first alternative is in most cases undesirable, and the second is possible to only a few.

It seems that we must look to the public schools for a solution. If we could only find a panacea for all these ills, which could be applied speedily, expeditiously, and effectively, how startling the results would be! Think of every man and woman doing exactly that thing for which he or she is by nature fitted. What an effect it would have on the happiness and production of the country!

Of course, it is impossible, even to one possessing the wildest imagination, to contemplate such an Utopia, yet there is no doubt but that a very considerable improvement over the present situation can be had.

Ten out of every one hundred pupils starting in the first grade, complete the high school,² and yet there is no concerted effort on the part of the schools of America either to guide the ninety who have fallen by the wayside into the life callings where their talents would be put to maximum use, or to judiciously direct the courses of study of the ten who survive. If we hope to increase this per cent, we must without question introduce a very much broadened and enriched curriculum to meet the interests of the pre-adolescent and adolescent child. He is anxious at this age to do real things in a real way, and begins to chafe under the restraint of school tasks which ordinarily have touched his life in so few places.

After seeing many a pupil fling himself against high school subjects in which he had no interest and for which he had no earthly use, and after witnessing many failures, teachers the country over are beginning to be pretty well convinced of the soundness of Briggs' notion of exploration in the early grades of the junior high school. Hence, many schemes of broadening the curriculum have sprung up over the entire country.

In 1893 the famous Committee of Ten, of which President Charles W. Eliot of Harvard University was chairman, reported to the National Education Association, in favor of enriching the course of study in grades below the high school, through the introduction of various subjects such as algebra and Latin, but in their recommendations were no provisions that these subjects be revamped so as to be adapted to children of the lower grades. Since teachers were not trained for this work and administration was not altered, the inevitable result was failure, and a reaction set in. This reaction, however, was only temporary, for people soon realized that the days of the three R's were gone forever. Life's conditions and demands were becoming too varied and complex for such simple and unsupplemented education, and, hence, each year has seen new subjects introduced into the curriculum of the seventh and eighth grades, until at present, junior

² Figured from data given on page 78, *Biennial Survey of Education*, 1916-18, Vol. III, Department of the Interior, Bureau of Education Bulletin, 1919, No. 90.

high school programs are, almost without exception, hopelessly congested. In a moment of enthusiasm an energetic superintendent, a civic or women's club looking for something to do, or a parent-teachers' association seeking to leave its imprint on the school, has forced a new subject into the curriculum, and often succeeded in convincing the school board that it should be studied by every pupil, regardless of the universality of its appeal or usefulness.

That our junior high school programs offer a variety of courses is attested to by the large number of studies required in some of our best-thought-of junior high schools, where we often find from twelve to twenty different subjects being offered to the bewildered seventh and eighth grade youngsters each week. Some of the schemes for administering this large number of courses have been bunglesome and awkward. In order to crowd the great number of subjects into the short space of time allotted in the five days, the school principal laboriously, and often skillfully, prepares an intricate schedule of recitations. Aiming, and in many cases required, to utilize every available foot of space every hour of the day, he arranges the schedule so that the child rushes between periods, from the basement to the attic, from the east wing to the west, or from the north laboratory to the south study-rooms, with the regularity of the train which shuttles between Grand Central Terminal and Times Square, the only difference being that on account of the great number of subjects, the child seldom shuttles to the same room or the same subject at the same period any two days in succession. It is twice-a-week physiology, once-a-week patriotic singing, twice-a-week assembly, three-times-a-week science, and other similar one-, two- and three-periods-a-week subjects, a procedure which results in the program for Monday seldom, if ever, being the same as that for Tuesday. All of this has the tendency to confuse the child so thoroughly and spread him out so thin, that many doubt the worth-whileness of the plan. Yet, even this scheme seems to present decided advantages over the narrowly restricted three R regime, with its monotony that stifled interest, in many cases impaired progress, and resulted in the high mortality which has been the chief factor in calling into existence the junior high schools of today.

The plan described in the following chapter attempted to in-

clude the good points of an enriched curriculum and at the same time to provide a scheme whereby pupil energy might not be so scattered, program-making might be made easier, and instruction might be more closely knit together. Here also will be described the procedure whereby the plan was introduced.

CHAPTER III

THE BROADENING AND FINDING SCHEME OF THE OKMULGEE SCHOOLS

I

IN THE preceding chapters we have noted the almost universal agreement among educational experts as to the need of an enriched curriculum in the seventh and eighth grades, and we have presented, somewhat superficially, some reasons for the development of the enrichment idea.

Let us now turn to a scheme which with the advice of Dr. Thomas H. Briggs was developed during a five-year period in a typical growing Mid-Western town of from 15,000 population in 1918 to 25,000 in 1924, and which attempted with the coöperation of the teachers to incorporate the best current thought in the field of junior high school enrichment.

Briggs' first aim of a junior high school, namely, "To offer that common integrating education which is a necessary foundation for every citizen," was used as the guiding principle in determining the core of the curriculum. This core consists of:

1. *English*, which includes:
 - a. The literature of childhood
 - b. Composition
 - c. Spelling
 - d. Grammar
 - e. Penmanship
 - f. Speaking

Accomplishment tests are given frequently (four times a year), in composition, spelling, penmanship, and grammar, to make certain that the children are up to standard. But these tools of English are not made the major portion of the course. The children are not denied the pleasure of following the escapades of *Tom Sawyer*, nor the adventures of the pirates of *Treasure Island*,

in order to learn, only to forget, the difference between gerunds and objective complements. The course in English is offered five periods a week.¹

2. *Citizenship*, where an interesting study of the duties and privileges of the home, the city, and the county, together with their history and geography background, is made. In the eighth grade the state and federal governments are studied with their appropriate backgrounds.² These courses meet five periods per week.

3. *Mathematics*, which consist of :

- a. Sufficiently varied and engaging drill in the fundamentals to keep the pupils up to standard,
- b. The practical portions of arithmetic,
- c. Algebra through simple equations, and
- d. The conception of form from geometry and mechanical drawing.³

This course meets five periods per week.⁴

4. *Physical Education and Health* required one period daily, unless a physician's certificate is presented.

5. *A Combination Course* required of all pupils along with the four mentioned above. This course consists of four different units of work, each unit offered for nine weeks. These units are :

- a. *Music Appreciation*. Here every seventh- and eighth-grade child is given the opportunity to become acquainted with the best there is in music from an appreciation standpoint. He is urged and enabled to hear the good things in music which are given in the city from time to time. Through the coöperation of the women's clubs, the noted musicians visiting the community are always brought before the children. Community singing, including patriotic and school songs, as well as some of our old universally loved religious hymns, occupy part of this period.

¹ For details, see "Course of Study in English in Seventh and Eighth Grades," published by the Oklahoma Education Association.

² For the complete course of study, see "Course of Study in Citizenship for Seventh and Eighth Grades," published by the Oklahoma State Department of Education.

³ For detailed course of study, see "Course of Study for Junior High School Mathematics," published by the Oklahoma Education Association.

⁴ These three courses were written by the teachers of the Okmulgee, Oklahoma, schools, except for assistance on the English course secured from Miss Elliott of Drumright, Oklahoma.

- b. *Art Appreciation.* Here the work of the masters is presented through exhibits, readings, and stories. An attempt is made to imbue the pupils with an appreciation and love for the beautiful and artistic in all things. Great assistance is secured in this respect through the women's clubs of the town.
- c. *Spelling and Penmanship.* This nine-weeks course is offered in the commercial department, and is supplementary to the writing and spelling which is offered incidentally in the English course.
- d. *Geography.* This course is supplementary to the work in citizenship offered above, and provides for a more extensive study of needed geography facts than is permitted in the time allowed in the citizenship course. This unit was established because of the growing feeling among teachers and patrons for its need.

The five combinations of subjects mentioned above constitute the core of the curriculum, and are required of every seventh- and eighth-grade pupil. In them some of the fundamental things that had been offered in the first six grades are continued, although there are many eliminations and numerous variations.

It yet remains for us, however, to look at that part of the program which peculiarly provides for individual differences, exploration, and enrichment.

Each day following lunch, a period is set aside for *leisure activities*.⁴ The aim of these activities is to broaden the child through coöperative work and play that he may be better fitted to enjoy the present and to take up life's later responsibilities. A premium is placed on the pupil's initiative throughout. Each instructor, in offering an activity, is asked to present those things from his department which are recreational in their nature. The question asked of the instructor is, "What is there in your department with which a child might profitably and pleasurably spend his leisure time?" The activity period is forty minutes in length, and is placed in the middle of the school day rather than its close, for in the past parents under-estimated the value of work of this kind, and occasionally, requested the schools to release their children at the close of the so-called regular day.

Although the beginnings of the activities program were unimposing, the growth has been so rapid that it became necessary to employ a director for the work, the greater part of whose time is devoted to this alone. In 1923-1924 there were between seventy and eighty activities in progress every quarter. Every child is

⁴ The beginning of the *activity* work was originally borrowed from the Washington Junior High School, Rochester, New York.

required to choose some activity or remain in the study-hall. As a result of this ruling the study-hall is vacant.

A few samples of activities will be given here, and a complete discussion will be presented in Chapter IV:

The home economics department offers such activities as:

- a. Camp-Cooking
- b. Catering for Special Occasions
- c. Courtesy Club
- d. Fancy Work, and the like.

The science department presents:

- a. Burbank Club
- b. How-to-Treat-Your-Kodak Club, and the like.

The citizenship department offers:

- a. Social Service Club
- b. Travel Club
- c. Going to College Club, and the like.

The teachers of mathematics offer the following and similar activities:

- a. Visits to the Stars
- b. Beauty of Geometric Designs, and the like.

In this period also come the literary societies, most of the musical organizations, and other extra-curricular activities. The activities are offered once or twice a week, and permitted to run as long as a sufficient number of elections on the part of the pupils attest to their popularity. Some of them run for one quarter, some for a semester, and others for the entire year. Since some are held weekly and others semi-weekly, it is possible for one pupil to take from two to four different activities each week, thus adding variety and interest to his leisure-time program. This is one period when pupils are given an absolute choice of what they shall do.

The activities have proved popular and profitable, and instructors, schoolboard, and patrons are now convinced of the fact that the time spent on them is far from being wasted.

While the activities, the combination courses, and the regular subjects mentioned above have many features of enrichment, the unique and distinctive feature of the program is the *broadening and finding* courses. These were first introduced as *finding* courses, but later the name was changed to *finding and broadening*, and

finally to *broadening and finding*, indicating their purposes or functions as developing in the minds of the instructors.

These broadening and finding courses are nine and eighteen weeks in length—nine weeks in the seventh grade and nine or eighteen weeks in the eighth grade—and are open to every boy and girl in these two grades. Starting with only four of the nine-weeks courses in the fall of 1918 the school had in operation in 1923-1924 twenty-eight. It is the aim of these short courses to present glimpses of the future studies in the fields in which they are given, as well as to show the pupils the possibilities of the different professions and businesses of which each is a sample. In other words, these courses are cross-sections of later work. For example, the English-Latin broadening and finding course offered by the Latin department attempts to show the pupil what is in store for him if he continues his work in Latin in the senior high school, whereas the electrical broadening and finding course presents not only cross-sections of the higher courses in electricity, but also the problems and possibilities of electrical work as it is carried on in the city and in the nation. Practically every department in the senior high school contributes one or more nine-weeks offerings for the benefit of the seventh- and eighth-grade pupils. For the sake of clarity a further example will be given and more in detail.

The automotive department offers nine weeks of work to seventh-grade boys and nine- and eighteen-weeks courses to eighth-grade boys. It is the aim of the instructor of these courses to point out to these young pupils the possibilities of this subject, and some of the bright spots as well as the drab ones are brought to the boys' attention. The youngster is brought in touch with the joys and thrills of the ignition work and the motor, but he is also compelled to experience the difficulties and dirt found in greasing a car. The instructor's aim is to paint for the boy an accurate picture of the working of the automotive department and the automobile industry. Incidentally, he is trying to discover which boys in this broadening and finding course have aptitudes for automobile work, and hence will make good grist for his more advanced courses.

These twenty-eight broadening and finding courses are elective. Every pupil, however, is compelled to take four out of the twenty-eight in the seventh grade, and two, three or four in the eighth

grade, the only requirement being that one of the broadening and finding courses in each year must be science. This scheme enables a pupil to taste with profit six or eight different fields in these two years. For example, a boy in the seventh grade may take journalism for the first nine weeks; type-writing the second nine weeks; science the third nine weeks, and carpentry the fourth nine weeks. In the eighth year he may either take four more entirely different nine-weeks courses or he may take two nine-weeks courses, and one eighteen-weeks course in that subject which he seemed to have liked best of the four which he chose in the seventh grade; or, if he and the school authorities think it likely that he will drop out of school at an early date, he may be allowed to specialize by taking two eighteen-weeks courses; for example, an eighteen-weeks' course in carpentry and another eighteen-weeks course in an allied field, such as mechanical drawing.

Hence, it is possible to take four broadening and finding courses in the seventh grade, four in the eighth grade, and begin with the differentiated curriculum in the ninth grade, or to take four courses in the seventh grade, two in the eighth, and differentiate in the ninth; or four in the seventh, and three in the eighth, and differentiate in the ninth.

These courses have been called *broadening and finding* courses, for (1) through them many of the pupils *find* the later courses for which they seem to be best fitted, and in which their interest seems to lie; (2) in some instances they *find* also their life-work although this happens less frequently, and (3) whatever the finding, the school authorities claim that the pupils are profitably *broadened* by coming in contact with these different fields.

In order that the finding may be facilitated, part of the time of the shop courses is spent in regular instruction in vocational guidance. For example, during the nine-weeks broadening and finding course in automobile mechanics, the instructor shows the boys the kind of work they can do and the amount of money they can earn by qualifying for a job in a garage. He also points out to them the greater amount of compensation in as well as the larger amount of preparation necessary for electrical engineering. There are also additional offerings in vocational guidance in the activity periods, where the possibilities in all fields are more or less carefully discussed.

But our experience seems to indicate that the most effective vocational guidance is that taught directly in connection with the work in the particular field, for the boy's decision seems to be reached more conclusively when he is experiencing actual working conditions, than when he is merely reading and talking about vocations. On the other hand, as has been pointed out above, there is a constant endeavor on the part of each instructor to find whether or not the pupils who come under his care in broadening and finding courses are suitable for further work in his particular department. Hence, teachers as well as pupils are keenly interested in the *finding* process.

Here, of course, a danger arises from the fact that certain instructors are better salesmen than others, and a pupil is sometimes lured into a field which is not as well suited to him as some other might have been. This danger has been carefully watched, and upon checking is found to be practically negligible, for, since each pupil has an opportunity to make six or eight different selections and hence comes in contact with many departments, the only influence of better salesmanship appears in the order in which the pupils enroll in the broadening and finding courses. Other things being equal, the good salesman gets the first chance at the pupil he wants, but during the time the pupil is enrolled in the seventh and eighth grades, five or six other departments have also had an opportunity to present their wares.

The chief aim of the broadening and finding courses, and the chief value, seems to be the broadening effect. While for purposes of finding, a more or less typical cross-section of future school work or life-work is portrayed, nevertheless an attempt is made to present only material which is in itself worth while. Hence, if the finding were reduced to zero quantity, which would be well nigh impossible, the enrichment alone would more than justify the cost. The results, however, will be treated in a future chapter.

Since the plan described above was used in a public school situation, it will probably be of value to give some of the methods employed in getting it under way.

II. PROCEDURE EMPLOYED IN INTRODUCING THE PROGRAM

Subscribing to the general principle that a school superintendent is riding for a fall unless he can convince his board of education and the people as to the soundness of his policies, a definite pro-

gram was inaugurated in the fall of 1918, for the purpose of acquainting first the board of education, and then the taxpayers, with the proposal to enrich the course of study beginning in September, 1919. First, the board of education was convinced of the possibilities of the plan to a point where they provided the necessary funds to send their superintendent to study the five or six best known junior high schools in the country. These schools had been selected through the advice of Dr. Thomas H. Briggs, of Teachers College, who was at that time preparing his book on the junior high school, and had recently made a tour which brought him in contact with most of the good junior high schools.

Returning with much worth while information, the superintendent's next move was to see that the teachers were well informed regarding the nature of the work which was to be inaugurated in the fall provided the approval of the taxpayers was secured. It was deemed wise to make a rather modest beginning, and hence it was decided to ask the people at the start to approve the establishment of only a few nine-weeks trial courses.

Fortunately, after several conferences had been held and the plan had been explained more or less in detail, every teacher was willing and almost all were enthusiastic. The women of the faculty took it upon themselves to carry the campaign to the women of the city through the Federation of Women's Clubs, the Parent-Teachers Association, and other similar organizations. The men on the board of education formulated and developed a plan of presenting to the civic organizations, the Chamber of Commerce, etc., the salient features of the enrichment work. Opposition was met in several places, but so carefully had the members laid their plans that within every organization addressed there were from five to ten individuals who had been prepared in a personal conference and hence knew well all the merits of the proposed scheme, and were willing to argue in its behalf. The objections varied from the reasonable to the ridiculous.

The favorable response to the campaign was most gratifying, however, ninety per cent of the people expressing themselves as being perfectly willing for the project to be launched, not only because they had confidence in the faculty, but also because they believed in the soundness of the plan itself.

Realizing their lack of knowledge in regard to this new departure in education, and wishing above all things to make as few

mistakes as possible, since the public had expressed its confidence in the plan, the board of education and the faculty arranged for a teacher-aid week, to precede the opening of school in the fall of 1919. During this period, Dr. Thomas H. Briggs of Teachers College outlined in three lectures the exploratory scheme and spent the remainder of the week in personal conference with the instructors of every subject. Dr. N. L. Engelhardt, also of Teachers College, assisted in straightening out some of the administrative kinks, and as a result, when the doors of the school were thrown open to the pupils the next week, each teacher had quite a definite notion of what he wished to accomplish in his try-out course. The goals for the first quarter had been set, and with this accomplished, there was the feeling that the task was half done.

After the first three weeks of school had passed, with its ever present bustle and rush, regular Saturday morning conferences were held, in which the teachers of the finding courses—for we had decided during teacher-aid week to give them this name—the heads of departments, and the administrative officers participated. These conferences were held every two weeks. It was here that the teachers presented, and in many cases threshed out with each other the problems they were meeting. It was here that they agreed upon the promising future possibilities of the work and decided that additional finding courses would be of great value to the pupils, the teachers, and the parents. In fact, the trading of experiences and the checking of results during these Saturday morning conferences culminated in a fairly definite understanding on the part of the teachers and the administrative force of the problems they were attacking and were the making of the finding courses.

III. ACQUAINTING THE PARENTS AND PUPILS WITH THE ADVANTAGES OF THE PLAN

With the board of education favorable, the taxpayers willing to give the experiment a trial, and the teachers fairly well grounded in the principles involved, the next step was the education of the children and parents, to the end that they might make as intelligent a selection of courses as possible. In most high schools where the choice is left in the hands of the pupil, the selection has been haphazard, and in some cases very unfortunate. Mary

chooses French because Alice and Grace are taking it, and George chooses French because Mary took it, and all of them take Latin because "Dad said so." During the teachers-aid week, five days before the opening of school, personal invitations were sent by the teachers to the parents of every prospective seventh- and eighth-grade pupil. This invitation gave a short, simple explanation of the nature of the broadening and finding work, and attempted to impress the parents with the importance of their attending, along with their children, the enrollment exercises. The city press and the school paper, of course, carried publicity featuring the new work.

The plan for enrollment was as follows: No pupil was allowed to enroll until he had visited the classroom or laboratory where each broadening and finding course was to be taught, and had listened to a ten- or fifteen-minute explanation by the instructor in charge. The pupils along with their parents were sent on these visiting excursions in groups of thirty, each group following a set schedule that called for a visit to each room at a certain time. This work of visiting and becoming acquainted with what each broadening and finding course contained, consumed the better part of a day for each of the two grades, but the results were most gratifying, for at least ninety per cent of the pupils enrolling and thirty per cent of their parents received first-hand information regarding the work and the school. After the get-acquainted-pilgrimage, the pupil was allowed two or three days to discuss the matter with his parents and was then asked to send in his choice-card, which was signed by the parent, the teacher-advisor, and the pupil. A copy of this choice-card is reproduced here.

BROADENING AND FINDING CHOICE-CARD

After hearing each of the Broadening and Finding courses explained, and seeing the rooms and equipment, I and my parents have decided that I shall take the

.....B. & F. for the.....
quarter of the 1923-24 school term.

In case I cannot get this B. & F. I should like to take the B. & F.
entitled
or the one called

SignedPupil
.....Parent
.....Advisor

It was at this juncture that the trained advisors on the faculty were called upon to use all the tact they possessed, and several skirmishes were lost. One instance is worth repeating. A pupil who had tested eighty on a group intelligence test and seventy-nine on an individual intelligence test, insisted, along with the very ardent support of her father, upon taking the broadening and finding work in English-Latin. The teacher-advisor used all her power in an endeavor to dissuade them, even calling in the head of the Latin department, but to no avail. Since there is no law in America, and fortunately so, for absolutely forcing people out of a subject which has been thrown open for election, the principal yielded and the girl was allowed to take the course. At the close of the nine weeks, however, it was not necessary to renew the argument, for, when in the course of presenting a typical cross-section of Latin, some of the conjugations were assigned, this girl and her father were perfectly satisfied that Latin was not meant for her, nor she for Latin.

Each semester following, a plan of enrollment similar to the one just described was carried out with the high sixth-grade pupils in the spring or winter preceding their entrance into junior high school, the only difference being that they visited the broadening and finding courses while these were actually in session. This selecting process was further perfected in assemblies held prior to the opening of each new quarter of the school year where the merits and disadvantages of each broadening and finding course were carefully discussed. In the advisory group, where the pupils were in smaller sections, a still more analytical explanation was made and questions answered. In these groups, which meet for ten or fifteen minutes daily, pupils are asked such questions as: What subjects do you think you will take in the latter years of your high school career? Why do you think you will take these? and the like. Thus, the teacher-advisor makes it her business to keep in touch with her own pupils in order that she may be better able to determine whether or not choices have been wisely made and in cases of error to see that the pupil's program is righted.

Table I indicates the number of pupils who have selected the various broadening and finding courses as they have been offered through the years, 1919-1920 to 1923-1924, inclusive.

TABLE I

PUPILS ENROLLING IN BROADENING AND FINDING COURSES FROM 1919 TO 1924

Broadening and Finding Courses Elected	YEARS									
	1919-1920		1920-1921		1921-1922		1922-1923		1923-1924	
	Seventh Grade	Eighth Grade	Seventh Grade	Eighth Grade	Seventh Grade	Eighth Grade	Seventh Grade	Eighth Grade	Seventh Grade	Eighth Grade
Art.....					61	50	69	106	15	12
Arts and Crafts.....										53
Auto-Mechanics.....		31		41	81	19	75	58	76	75
Business.....	161	110	44	63	109	35		65		49
Carpentry.....			47	16						
Cement and Re- pair.....	17	23		48						
Cooking.....	39	40	76	97	37	40	87	91	80	81
Electricity.....	47	58		28		75		93	69	32
English-Latin.....		26	20	54		32		66		38
Expression.....			111	43	58	39	44	34	72	
Freehand Draw- ing.....		17	41	19	74					
General Repair.....				25	15	68		88		29
General Shop.....									17	19
Health.....		11	63	33	Placed 1921.	in pro gram of	requir ed	subj ects in		
Home Nursing.....	56	68						57		
Journalism.....					66		84		62	
Manual Training.....	83	78								
Mechanical Drawing.....						22	72		24	43
Music.....			74	24	32	46			37	47
Pre-Modern Languages.....										47
Printing.....	23	41				46		48		48
Public Speaking.....	140	109								125
Science.....	274	249	139	144	155	133	123	43	211	55
Sewing.....	128	160	129	167	127	109	82	67	76	69
Social Civics.....				35						
Typewriting.....							110		105	
Vocational In- formation.....					55	48				
Woodwork.....			26		69		122	43	82	70

IV. CLASSIFICATION SCHEMES

During the five years that the scheme has been in operation we believe individual differences have been about as carefully checked up as is possible in a public school system. In 1923-1924 there were fourteen sections of the seventh grade and ten sections of the eighth grade. For the convenience of the reader the sections of the seventh grade which begin their junior high school work in September are numbered, 7-1, 7-2, 7-3 through 7-10, where 7-1 represents the highest section and 7-10 the lowest section. For the seventh grade pupils who begin their junior high school work in the middle of the school year the sections are numbered 7-11, 7-12 . . . 7-29, where 7-11 represents the highest section and 7-20 the lowest section. A similar arrangement from 8-1 to 8-10 and from 8-11 to 8-20 is used for the eighth grade.

The pupils are assigned to these sections in groups of thirty to forty, on the basis of the following criteria:⁵

1. Group psychological tests,—for the most part the Terman group and the National Intelligence Tests.
2. Individual psychological tests of every child. The Stanford revision of the Binet-Simon was used.

Tests (1) and (2) were given by the school psychologist either while the child was in the high sixth or the low seventh grades.

3. Educational achievement tests covering all subjects, such as the Stanford Achievement Tests, Woody-McCall Mixed Fundamentals, etc.
4. Teachers' opinions based upon class work and home visits. Each teacher-advisor visited the homes of her pupils twice a year, keeping on file a report of social conditions there. This has been one of the most valuable guides in the placing of pupils. In some cases the home visits were supplemented by the reports of the visiting nurse, attendance department, etc.
5. Previous school marks made by the pupils. These sometimes extend back over the entire six-year period.

In assigning pupils to their proper sections no absolutely fixed weighting scheme is employed. The heads of the departments of English, citizenship, and mathematics, together with the dean of girls, the director of educational statistics, and the vice-principal constitute the committee which decides upon the final classification, subject, of course, in extreme cases to the decision of the principal. The top sections are called enrichment classes and a much broader and varied amount of work is given them. In the lower sections the work is assigned according to the ability of the class. While most of the classification takes place during the enrollment week, and the first week of school, many adjustments are necessary all through the school year as pupils fail or more than measure up to expectations as indicated by the five criteria used above. The administrative scheme is so arranged as to make these adjustments promptly and with a minimum of friction.

⁵ During the first two of the five years of the experiment the school psychologist was a woman who had been assistant to Dr. H. H. Goddard, the other three years the psychologist was a woman who had been trained by Dr. B. R. Buckingham and Dr. W. S. Monroe.

In many cases pupils of the enrichment classes are allowed either to take an extra subject or to complete three semesters work in a year. This is usually the case in the 7-1, 7-2, and 8-1 sections. There is a sufficient number of groups to make this division very workable and worth while. While there is some competition among pupils and patrons to gain admittance into the enrichment classes, it is, with very few exceptions, friendly and legitimate. In the lower sections pupils are promoted on the basis of performance, a motto of the school being, "Every pupil who does his best passes."

At this point a slight digression must be made in order to indicate the articulation of the elementary schools with the junior high school. In every ward school there are in addition to the regular classes for normal children, separate classes for the underprivileged and enrichment classes for those especially favored. A child entering school at the age of 5 or 6 years is placed in an *entrance* class. Here he is given an individual psychological test. On the basis of this test and the teacher's opinion after working with the child for a sufficient length of time, he is placed in either a normal class, an enrichment class, or a class for the slow-moving—an opportunity class. (An attempt has been made to get away from naming these classes at all, and although it has not been entirely successful, practically no stigma is now attached to those attending these low-speed classes.)

The children in the normal classes are promoted year by year, finishing the six grades at the close of the sixth year, and entering the junior high school where they are placed in one of the middle sections mentioned in the paragraph above, such as 7-5, 7-8, etc. The children in the enrichment courses secure the benefit of a very much broadened curriculum, and also some acceleration, usually the six years being covered in five. The children in the opportunity classes are promoted on the basis of effort, since, as stated above, a tenet of the school is that a child with an I. Q. of eighty who works up to seventy-eight of that eighty, is just as worthy of promotion as one who works up to only one hundred and fifteen of the one hundred and twenty I. Q. with which he is blessed. Hence the failures in all three tracks of the school are only those who do not put forth sufficient effort.

The children in these limited or opportunity classes usually find themselves emerging from the opportunity sixth grade in about

seven years. At the close of each semester they are ordinarily promoted to the next higher group in the chain of limited classes. There is, of course, opportunity at all times for transferring from one track to another.

If pupils attain the age of thirteen years without having finished the sixth grade, they are promoted to the Robert E. Lee High School, except in very special cases where because of lack of physical development or home or classroom conditions it is thought best by the school authorities and parents to retain the pupil in the ward school. There have not been more than two or three cases of this kind each year.

At the Robert E. Lee High School the pupil is given whatever his ability warrants, and in many instances an individual program, such as the following, will be found: Third Grade Spelling, Fourth Grade Writing, Sixth Grade Arithmetic, Fifth Grade Geography, High School Football, Junior High School Music, Freshman Auto Mechanics, etc. Pupils are placed in sections here, such as 7-1, 7-2, etc., on the basis of the same criteria described above, except that a second and sometimes a third individual test is given before they are sent to the Robert E. Lee High School at all. The pupils in the lowest sections, those with I. Q.'s ranging from fifty-five to sixty-five, have programs which are almost entirely industrial and vocational while those in the highest sections, with I. Q.'s of seventy-five to eighty-five, have programs which vary from one-third to one-half in vocational and industrial work. The pupils of this high school have the opportunity of sampling several different occupations, but such broadening and finding courses as English-Latin, pre-modern language, etc., are not offered. Figure 1 shows this classification process graphically.

It has seemed best to house these pupils in a separate building, chiefly for their own good. Here with their peers they do not feel the sting of unfair competition which brighter pupils of younger years often cause. And in addition, they are in the midst of conditions which are favorable to calling out whatever initiative they may have, since this school must have its team captains, yell leaders, class presidents, and student council. While it is slightly beside the point, it is interesting to note that at first the school authorities were of the opinion that many of these retarded pupils had merely been deprived of an opportunity to attend

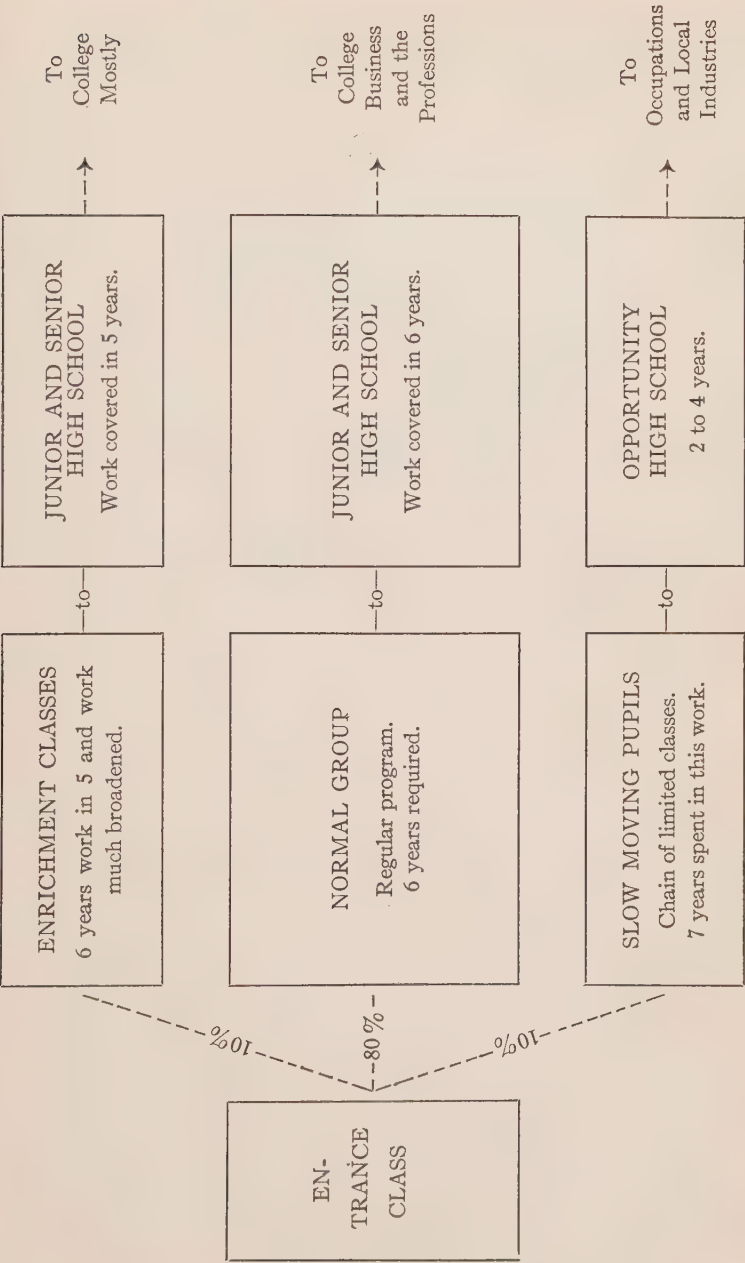


FIGURE I
SCHOOL PROGRESS CHART

school, and in a short time, with proper attention, might measure up well. Our experience has shown that this percentage is extremely low—in fact, only five per cent. Although it was the original intention to offer here six years of work above the six-year ward school, experience has indicated that the pupils can be best served by being placed at the end of three or four years in occupations about the city in which they give moderate satisfaction, and in which they seem to be happy.

During the first two years after the establishment of the Robert E. Lee High School, there was some demand on the part of pupils and patrons to have the pupils transferred to the Washington Irving (the regular) High School. Some transfers were made, but as the criteria, especially the individual testings were more carefully and systematically given, this demand diminished, until in 1923-1924 only four out of the three hundred pupils enrolled asked to be transferred, and two of these asked to be returned to the Lee School after their original requests had been granted. It is not uncommon, however, for the school authorities to transfer a few pupils each year.

CHAPTER IV

OUTLINES OF SOME BROADENING AND FINDING COURSES AND ACTIVITIES

A SCHOOL program which sets for itself the aim of exploring the interests, aptitudes, and capacities of pupils, and of revealing the potentialities in the different fields of information and the vocations, requires a very considerable re-organization of its present courses of study and often an almost complete re-writing. Briggs says in this regard:

So far relatively little has been achieved in formulating exploratory courses which at the same time lead to other highly desired and assured results, but the ideal is widely accepted, and here and there courses are being constructed or revised to achieve it. Progress of this nature will necessarily be slow until the contributions of many teachers are combined and made widely public.

In this chapter will be presented:

I. A complete list of the broadening and finding courses offered.

II. A brief outline of one broadening and finding course as it has been worked out by the faculty of the Okmulgee, Oklahoma, High School.¹

III. Still briefer outlines of two of the other broadening and finding courses.

IV. A list of the activities used during the year 1923-1924, with a very brief synopsis of each of these activities.

Some of the force of these courses has been lost in the process of boiling them down to the available space, but it is hoped that sufficient information is given to convey to prospective teachers of broadening and finding courses, an idea of the subject matter

¹ For some other outlines see author's original Doctor's dissertation "A Field Experiment with Junior High School Broadening and Finding Courses" on file in Teachers College Library.

involved. Courses such as those which follow have been offered in various parts of the country under such names as tryout, finding, exploratory, short, nine-weeks, semester courses, and the like. The term used here is broadening and finding, having been chosen as the one most appropriate when the aim and effect of the work is taken into consideration. While the aim of each particular course is stated by the instructor in charge, it will probably not be amiss here to state the aims in general.

Three aims of the broadening and finding courses are:

1. To represent typical cross-sections of more advanced work which is to be offered in later years in the senior high school. They include excursions into the various fields of learning. Through them the pupil is shown what may be his if he will only continue in his school work until he is able to understand and profit by the more advanced situations, glimpses of which he has caught. This feature was especially stressed in this experiment, for the broadening and finding courses were offered in a six-year high school, and in most cases by heads of departments or instructors of the senior high school work, and in the shops, laboratories, and classrooms where much of the more advanced work was carried on. In the science laboratories, in the home economics rooms, in the art studios, and in the shops, the pupils came in daily contact with engaging and interesting work which had been carried on by senior high school pupils and to which the instructor could point with an encouraging urge that the seventh-and-eighth grade pupils continue in school until they might be able to accomplish similar or better things. Hence this part of the aim of the broadening and finding courses was to pull back the curtains, not only to reveal the possibilities of the major fields of learning, but also to accomplish the more prosaic but important task of retaining pupils in school. If this first major purpose should be stated from the standpoint of the pupil, it would show that the broadening and finding courses aim to explore the present interests, aptitudes, and talents of the pupil in the subject matter that has been offered with a view to predicting what his future interests in similar but more advanced subject matter might be.

2. In the case of the pre-vocational broadening and finding courses such as printing, carpentry, etc., the aim of the instructor in addition to that mentioned above is to acquaint the pupil with

the possibilities life offers in these particular fields. Vocational guidance can be best taught in this kind of course. Although it must be admitted that there is guidance value in reading about the possibilities of the automobile industry, guidance will be much more intelligent if the pupil has first-hand information of the high and bright, as well as the dull and drab spots of the vocations he is considering. There is apt to be a more intelligent choosing if a pupil is asked whether or not he should like to become an auto-mechanic just after he has mashed his thumb in attempting to open a rusty pet-cock, and having opened it has had his face splattered with oil. If, on the next day when the motor is accurately tuned and all six cylinders are performing perfectly, he is asked the same question, the answer may be different, but in either case it is given in the light of personal experience. Of course, the actual experiences in the different fields should be supplemented by information concerning the possible remuneration of the different phases of the vocation the pupil is studying and the chances for advancement, as well as its other advantages and drawbacks.

3. The third and final aim, which is applicable to all broadening and finding courses, and which is far more weighty than all the others combined, is to present only material otherwise worth while and entirely justifiable from a pedagogical standpoint, in order that the pupil may be profitably broadened.

I.

The list of broadening and finding courses offered in 1923-1924 was as follows:

Seventh Grade

Art	Mechanical Drawing
Auto-Mechanics	Science
Cooking	Sewing
Electricity	Typewriting
Expression	Vocal Music
General Shop Work	Vocational Information for Boys
Instrumental Music	Vocational Information for Girls
Journalism	Woodwork

All the broadening and finding courses offered in the seventh grade are open to eighth-grade pupils, and in addition they have access to the following:

Eighth Grade

Arts and Crafts	General Repairs
Banking	Home Nursing
Brick-laying and Cement	Interior Decorating
Biological Science	Millinery
Business	Physical Science
Carpentry	Pre-Modern Languages
English-Latin	Printing
Forging and Sheet Metal	Public Speaking

In the following pages three broadening and finding courses are presented for the most part in the instructors' own words. The writer realizes that many of these courses could be improved upon, and that in many instances they reflect the poor explanations he was able to give his instructors, for some of them have not always hit upon what he considered the right idea, but in the main it seems that the general notions were not only well grasped by the entire faculty, but were enriched and made much more valuable through their contributions.

II

BROADENING AND FINDING COURSE IN ENGLISH-LATIN ²

By:

Stella Maddox,
Head of the Latin Department,
Okmulgee High School,
Okmulgee, Oklahoma.

Aims: The teacher's first aim in this English-Latin broadening and finding course is to enrich the pupils' experiences with and appreciation of art, literature, etc., through a wider knowledge of the mythological stories of Latin and Greek literature.

The second aim is to give to the pupil a cross-section of Latin study from the most pleasant to the most difficult part, so that he, the teacher, and the parents may be better able to decide whether he should continue the study of Latin or enter upon some other field of activity.

The third aim is to show the pupil the practical values of a study of Latin on our English vocabulary and to provide an easier and better understanding of many passages in English literature.

² For detailed information regarding this course, see unpublished manuscript "Broadening and Finding Course in English-Latin," by Stella Maddox.

OUTLINE OF ENGLISH-LATIN COURSE

Chapter I. The Fall of Troy and the Wanderings of Æneas.

1. The City Troy.

- a. Its power.
- b. Priam, its king.
- c. The royal family.

2. The Fall of Troy.

- a. Story of golden apple to be given the fairest goddess.
- b. Bestowed upon Venus by Paris.
- c. Hostility of Juno for Paris and Troy.
- d. Reward of a most beautiful wife for Paris, by Venus.
- e. Paris' visit to Greece and his love for Helen.
- f. Their elopement to Troy.
- g. Siege of Troy by the Greeks.
- h. Wooden horse.
- i. Warning of Laocoön and others.
- j. Greeks within the gates of Troy.
- k. Fall of Troy.
- l. Death of Priam.
- m. Escape of Æneas, his family, and a few friends.

3. Wanderings of Æneas.

- a. All his household, except his wife, meet at Mt. Ida.
- b. Build fleet.
- c. Sail to Delos.
- d. On to Crete where plague befalls them.
- e. On to Strophodes where Harpies devour their food.
- f. Past Scylla and Charybdis, and Mt. Etna, home of the Cyclops.
- g. Arrive at Drepanum, Sicily.
- h. Death of Anchises, his father.
- i. Storm drives them to Africa.
- j. Friendship and love for Dido.
- k. Warned by Venus to leave Africa.
- l. His departure toward Italy.
- m. Track meet at Drepanum.
- n. Visit at Cumæ, Italy, and the underworld to consult his father.
- o. Arrival at the Tiber in Italy.
- p. Builder of a new city.
- q. Ruler of Latium.

Chapter II. Early English.

1. Angles, Jutes, Saxons in lowlands of Germany.

- a. Description of people, their characters and lives.
- b. Sail to Britain and establish a new home in what becomes Wessex (West Saxons), Essex (East Saxons), etc.

Chapter III. Early History of Latins and the Spread of their Language.

1. *a.* Descendants of Æneas quarrel, and Numitor makes himself King.
b. Birth of Romulus and Remus, grand-nephews of Numitor.
c. Faustulus, the shepherd, finds and cares for the children to the age of manhood.
d. Faustulus tells them the fate of grandfather, uncles and mother at the hands of Numitor.
e. Restore grandfather to the throne.
f. Build Rome.
g. Death of Remus.
h. Rule of Romulus.
i. Disappearance and prophecy of Romulus.
j. Rule of seven kings.
k. Republic, with two consuls elected annually, is established.
2. *a.* Rome conquers Italy, Spain, France, and takes her language to these countries.
b. Finally conquers Britain under Julius Cæsar, and leaves many Latin words, customs, ideas, etc.

Chapter IV. Contact of Latin with English.

1. Many war terms used by Cæsar and his army in Britain, as *castra* (Lancaster), *portus* (Portsmouth), and the like.
2. *a.* Through Gregory, Augustine, and their fellow workers, Christianity and Church words and phrases become common in Britain.
b. Through travel and exchange of products, etc., during Anglo-Saxon rule, 449 A. D. to 1066 A. D.
3. *a.* Norman Conquest brings new Latin and French habits, customs, ideas and language to Britain through inter-marriages, schools, court and nobility, law courts, church and literature.
b. Through French spoken by the people of Paris which was more like the original Latin.
4. A conscious effort to use Latin words was made by the people after the flight of Latin and Greek scholars in Constantinople from the Turks in 1453.
5. The great number of words taken over from the Latin without any change, such as, *color, plus, senior, via, item, bonus*, etc.

Chapter V. Modern Latin.

1. Words derived from Latin—Modern Latin—are underlined in passages taken from the preamble of the Constitution, Declaration of Independence, Burke, Shakespeare, newspapers, magazines, advertisements, dictionary, etc.
2. Words related in Latin, Spanish, Italian, English, show derivatives, of Modern Latin.

Chapter VI. Word Studies.

1. *a.* Derivation, root meaning, present meaning, and stories of such words as *aviator*, *dentist*, *pantry*, *terrier*, *secretary*, *jovial*, *cereal*, *manufacture*, *journal*, *rostrum*, *Rochester*, *rivals*, and many others, show the influence of the Latin on English.
- b.* Words from as many fields as possible are given.

Chapter VII. Latin Words and Expressions in Everyday Life.

1. Many actual Latin words and phrases are used by us daily, which are identical with those used by the Romans, such as *vice versa*, *bona fide*, *post mortem*, *sine die*, *et cetera*, *gloria patri*, *campus*, *circus*, *census*, *superior*, *consul*, *actor*, *emeritus*, *maximum*, etc.

To show how these words and phrases had become a part of our daily speech, questions were asked, such as, What word in the following sentence has a Latin look? "Ringling Brothers circus will appear in this city next week." After the word *circus* was picked out, its history is given to illustrate how many of our customs go back to the Romans for their origin, *i.e.*, there was in Rome a great race track called *Circus Maximus*, or the great circus, where the chariot races and other great contests were held. This custom has remained unbroken to the present time. We still use the Roman name of circus and when you next witness the chariot race of a modern circus, you will be doing exactly what Roman boys and girls used to do. You know that on circus day there is always a procession. Do you know where this custom comes from? We have simply kept unchanged the ancient custom, for the contest in the Circus Maximus opened with a grand procession which formed on the Capitoline Hill and marched through the city into the Forum Boarium where the entrance to the circus was located. (Locate on map of Rome.)

Chapter VIII. Elements of Language.

1. Vocabulary, syntax and inflections.
 - a.* Study of how a vocabulary may be acquired by context, English derivatives, or related Latin words.
 - b.* Use numerous sentences where one, two or all three methods are used to gain the meaning of the new word.

Chapter IX. How Latin Helps Us in Spelling.

1. The Latin word is given with the English word, and the similarity in the spelling of the two is pointed out, *e.g.*, *æroplane*, (*ær*), *annual* (*annus*), *separate* (*separatus*), *benefit* (*bene*), etc.

Chapter X. Latin Prefixes in English.

1. Of the sixty prefixes in English, thirty-four are Latin.
 - a.* The thirty-four Latin prefixes with their meanings are given separately and in compounds in sentences, *e.g.*,

ad—towards. He advocated many reforms.

con—together; with. The principal convoked the assembly.

- b. Assignments were made to consign as many of the 34 prefixes as possible, *e.g.*, *abduce*, *conduce*, *deduce*, *educe*, *induce*, *produce*, *reduce*, etc.

Chapter XI. Syntax and Inflection.

1. Simple sentences are studied with attention directed toward the subject, verb, object, etc., with English and Latin case names. The Latin case endings of any one declension are taught, personal endings of singular and plural verb forms are given, and some simple Latin sentences are translated.

Chapter XII. Is Latin Worth While?

1. a. Statements of leading educators, professional men, business men, statesmen, etc., are considered.
- b. Statements of pupils' friends, parents, teachers, etc., are obtained and discussed.
- c. Pupils' own testimonies after eight or nine weeks' study are given and considered.

Conclusions: After four years' experience in teaching this course, it was very difficult to pick out the part most interesting to the pupil. For days they gladly listen to the stories of the fall of Troy, the escape of Æneas, his experiences with the Harpies, his love for Dido, the track-meet at Drapanum, and his visit to the underworld. They became absorbed in the adventures of Romulus and Remus and the history of Rome. In this connection the *Standard Bearer* by Whitehead was found to be an excellent story to read. Other interesting stories and pictures of Roman life have been taken from White's *The Unwilling Vestal*.

As the course develops, the pupils find real Latin words for the first time. To be able to "spring" *lapsus linguae* on mother and father at the dinner-table places them in a class by themselves. They immediately begin searching the newspapers, magazines, story-books, cartoons, pictures, etc., for words and phrases that might be Latin. Much material is brought in, in this manner, and it is very surprising how few errors are made. The histories and stories of such words as *arena*, *campus*, *circus* and *candidate*, as well as many others, prove very interesting. It is no trick at all to have them see how many words, and words of what length they can build up by use of Latin prefixes and suffixes. No Latin teacher well grounded in the history and language of the Latins will

experience difficulty in discovering interesting work for pupils in an English-Latin broadening and finding course.

But in order that the pupil may see all of the picture, a few, difficult lessons were presented. Most pupils of high school Latin find their greatest difficulty in translating English into Latin, hence a part of the course presents that phase of the work. The five cases with their uses and singular second declension endings are also presented. Changes in verb forms according to person and number are explained, and the present tense of *sum* is given. About three days are spent in translation work. The pupils and teacher together review the simple principles of translation and apply them in translating sentences such as follow:

1. The servant has a garden.
2. Marcus has a horse.
3. In the servants' garden is a wall.
4. The friends of the servants are in town.
5. Marcus and Manlius have a friend (friends) in town.
6. The men give many books to (their) friends.
7. I see a friend of Marcus.
8. We see the friends of Marcus.

This is done chiefly for the satisfaction the pupils have in using words so new and different.

Most of the work in this course must of necessity be supplied by the teachers, since there is very little printed material that may be placed in the pupil's hands. Five or six class assignments are made, however, during the nine weeks. These consist of various phases of Roman life, such as their houses, equipment, dress, professions, recreations, mythical stories, etc. The material, which is collected by this means, is sometimes arranged in individual notebooks or on the bulletin boards. Other devices, depending largely on the personnel of the class, such as advertisements, jokes, Latin songs, Roman games, cartoons, etc., are quite frequently employed.

The course has been of decided value to the teachers of the Latin department in enabling them to advise the pupils more intelligently in regard to future work in Latin. The Latin department has been strengthened, and the work made to produce more personal satisfaction on the part of the teachers, since they were guiding into Caesar, Cicero and Virgil only those pupils for whom

success seemed more or less assured. The value to the pupils, as can be illustrated by case after case, is unquestioned.

Nine weeks seems to be a sufficient length of time to give both the teacher and the pupil a fairly good notion of the way in which the wind is blowing, as far as Latin is concerned.

Some material which will help in presenting this course follows:

MYTHOLOGY

A. In addition to the brief account of the Trojan War and the Wanderings of Æneas, the following stories, which may be found in any mythology, will be interesting:

- | | |
|---------------------------|---------------------------|
| 1. Apollo and Daphne | 8. Apollo and Hyacinthus |
| 2. Pyramus and Thisbe | 9. Echo and Narcissus |
| 3. Latona and the Rustics | 10. Clytie |
| 4. Callisto | 11. Atalanta |
| 5. Phaëton | 12. Midas |
| 6. Baucis and Philemon | 13. Jason and Medea |
| 7. Ceres and Proserpina | 14. Wanderings of Ulysses |

B. Roman life forms an engaging phase of this course. Through its study the pupil will realize that the Romans were a very interesting people and that many of our customs and beliefs have been given to us by the Romans. The following is a suggested outline for the study of Roman life:

1. Roman Forum.
(Material on this subject may be found in any good encyclopedia.)
2. Roman house. Its plans, heating and lighting system, the interior and furniture.
Social Life in Rome in the Age of Cicero, by W. Warde Fowler, Chap. VIII; *Private Life at Rome*, by H. W. Johnston, Chap. VI.
3. Roman slaves.
Johnston's Private Life of Romans, Chap. V; *Cæsar: A Sketch*, by James Anthony Froude, Chap. II; *A Friend of Cæsar*, by Wm. Stearns Davis, Chap. II, pp. 33, 34.
4. Roman children.
 - a. Roman child.
Johnston's Private Life of Romans, p. 67.
 - b. Pets and games.
Johnston's Private Life of Romans, p. 73.
 - c. Playthings.
Johnston's Private Life of Romans, p. 71.
 - d. Birthdays.
A Roman Boy's Birthday, by Bertha A. Bush, *St. Nicholas Magazine*, Vol. XXII, p. 38.

- e. Education.
Johnston's *Private Life of Romans*, Chap. IV; *Social Life in Rome*, by H. Warde Fowler, Chap. VI.
5. Some common professions and trades among the Romans.
 - a. How a well-to-do Roman spent his day.
Johnston's *Private Life of Romans*, p. 308; *Social Life at Rome*, by W. Warde Fowler, Chap. IX; *Ancient History*, by Hutton Webster, p. 581.
 - b. Banking and money lending.
Social Life at Rome, by W. Warde Fowler, Chap. III, p. 80; *Private Life of Romans*, by Johnston, p. 306.
 - c. Roman author.
Johnston's *Private Life of Romans*, p. 296.
 - d. Baker.
Johnston's *Private Life of Romans*, p. 191.
 - e. Lawyer.
Johnston's *Private Life of Romans*, p. 301.
 - f. Public baths.
Johnston's *Private Life of Romans*, p. 272.
6. Roman games.
Johnston's *Private Life of Romans*, Chap. IX; Chariot race in Wallace's *Ben Hur*, Chap. XIV.
7. Roman weddings.
Johnston's *Private Life of Romans*, Chap. III.
8. Roman funeral.
Johnston's *Private Life of Romans*, Chap. XII.
9. *History of Old Europe and Young America*. Mace and Tanner, pp. 74-135.
10. Calendar.
11. Songs:

America	I'm Forever Blowing Bubbles
Te cano, patria,	Semper facio aquæ bullas,
Candido, libera;	Pulchras bullas in ære.
Te referet.	Volant in altum,
Portus et exulum	Tangunt Cælum,
Et tumulus senum;	Tum ut somnia evanescunt;
Libera montium	Fortuna se celat,
Vox resonet.	Quæro ubique;
	Semper facio aquæ bullas,
	Pulchras bullas in ære.
Tutor es unicus,	
Unus avum Deus!	
Laudo libens.	Scotland's Burning (Round)
Patria luceat,	Roma ardet, Roma ardet;
Libera fulgeat,	Porta aquam, porta aquam,
Vis tua muniat,	Ignis! Ignis! Ignis!
Omnipotens.	

III

BROADENING AND FINDING COURSE IN ELECTRICITY

By:

J. C. Douthit,
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Okmulgee, Oklahoma.

Aims. 1. In this course, as in all broadening and finding courses, one of the primary aims has been to give the pupil sufficient knowledge of the subject and to show him the true value of the different vocations directly connected with the subject, in order to help him in determining whether or not he wants to take further work in this field. In cases where the pupil does not want to engage in this line of work, but elects some other technical line, the knowledge gained from this course should help him to know the relation between this work and that which he is following, and also to know how much knowledge along this line he will need to carry on his chosen work successfully.

2. If the pupil decides to take more electrical work the knowledge gained from this course will give him a decided advantage over the boy who has not taken it. If the pupil never takes any more work in this field, he has gained some knowledge of a broadening nature which he will always appreciate.

3. The various professions and vocations in connection with electrical work are taken up and discussed. This seems to be of great help to the boys in aiding them to get a clear idea of just what work is included in the various vocations, and it often happens that a boy who says he would like to do a certain thing, later says that he was mistaken and that some other line of electrical work appeals to him more.

Summary of Course. In presenting this course it is advisable, in addition to the general knowledge given the pupil, to show him both sides of the question. In showing him the bright side of the question, the following points are considered:

1. A brief history of the development of the electrical industry and the important place that it holds in our lives at the present time.

2. The opportunities and the necessity for still further development in this field.

3. An idea of the future demand for men and an idea of the salaries and opportunities offered in the various fields.

4. Discussion of some of the outstanding electrical developments in our present day commercial life.

5. A brief view of the lives of some of our outstanding men in the electrical field.

6. Take the boys to visit the local electrical plants. Try to answer all their questions and in addition give them an idea of the different fields of work necessary for the operation of these plants, including office work, skilled labor, engineers and designers, distribution, public safety, and the like.

In order not to give a distorted view, the pupils are shown some of the less pleasant aspects of the work, e.g.:

1. All pupils are required to learn the elementary laws governing electricity and magnetism. This not only gives them useful knowledge, but also shows them that there is some real work to be done in pursuing the study of electricity.

2. Experiments and projects are worked out in the laboratory which, although interesting, require some thought and real work on the part of the pupil.

3. In discussing the work in this field, the pupils are reminded that very few persons are Edisons. Competition that exists is brought forcibly home by reminding the pupils of the number of electrical engineering students graduated each year by the leading colleges, compared to graduates in other technical fields.

In order that this course may be as valuable to the pupil who does not pursue this work further, as to the one who goes into electrical work, the subject matter should consist of the things concerning electricity and magnetism which the ordinary layman needs to know in order to read articles and converse on subjects intelligently. This includes:

1. Sources of energy.

2. Converting energy of one form into energy of another form.

3. Early history and important steps in the development of magnetism.

4. Main points in the development of the electrical industry from the early experiments down to the present day, mentioning the men who have made important contributions to this development.

5. Relation between electricity and magnetism.

BROADENING AND FINDING COURSE IN BUSINESS

By:

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Okmulgee, Oklahoma.

Aims. The broadening and finding course in business offered in the junior high school in Okmulgee has been only slightly changed in the past three years. It is a nine-weeks course, meeting five periods each week. It was outlined after several influencing factors were considered. Among these were the breadth of the field of business, the material available, and the equipment that could be used in instruction.

From the standpoint of the needs of the pupil, the course was built around three main ideas:

1. Provision should be made for the pupil to learn more about the nature of the subject matter to be studied later in business courses.

2. Some of the possibilities in the business world which are open to those who take a business course should be presented to the pupil.

3. Practically all subject matter should be worth while and tend toward the broadening of the pupil's knowledge and experience.

The following topics make up the skeleton of the course outlined:

1. Some principles of elementary accounting, including practice work on the individual and household accounts in special column form.
2. Pupils keep record of all cash receipts and disbursements for six weeks.
3. Some important qualities of a successful business man.
4. A study of business forms. (Different forms are placed in the hands of the pupils and each is required to complete and handle several of each of the forms.)
5. Counting money, preparing and making bank deposits. (Actual work is done here.)
6. Study of the principles of thrift.
7. Study of shorthand. (About five hours are spent in studying the alphabet, the application and the peculiarities.)

8. A study of several business occupations and professions and how they are reached.

In the above brief outline of subject matter it will be seen that some provision has been made for the pupil to get better acquainted with material which will be studied in later courses, the subject matter under the first seven points in the outline dealing with this phase of the problem. The eighth point in the outline has been included to provide the pupil with a broader view of the possibilities in the business world; while all the subject matter in the course, with the exception of that under point seven, is valuable in furnishing facts and experiences almost indispensable.

IV. LIST OF ACTIVITIES

For enrichment purposes the so-called activities are of equal importance with the broadening and finding courses. These forty-minute leisure-time courses have been of proved worth if the almost unqualified endorsement of pupils and teachers may be taken as a measure. No preparation is required and practically all extra-curricular work is taken care of during this period.

Through these activities, excursions may be taken into many fields which would otherwise be untouched, because of the limited time at the pupil's disposal. Coming as they do at a period especially set aside for them, when no regular classes are in session, they are open to every pupil in the high school. Since some sixty to eighty activities are offered every year, there is sufficient variety to meet the tastes of everyone. Quite often teachers have asked to be permitted to offer activities in fields other than their own. This practice has led to true leisure-time enjoyment on the part of both the instructor and the pupil.

The list here presented is the one sent out by the teachers of the various activities and contains in some cases the teacher's announcement of the work offered, as well as some of the "sales talk" used to induce pupils to enter her particular work. From the brief explanations given here, some idea of the variety and scope of the activities can be gained.

ACTIVITIES

Agricultural Club.

Ancient History Club.

Stories of the Ancients; how they lived, what they believed, what they handed down. Some books or selections of interest may be read together.

Art History Club.

Would you like to recognize the most famous masterpieces of art when you see them? Would you like to know something about the creators of those masterpieces and under what circumstances they were created? Then join our Art History Club.

*Banking Club.**Batik Club.*

To apply design to cloth by hand. Open to pupils who have had some work in art.

Beginner's Band.

Open to both boys and girls regardless of age. Girls are especially encouraged to take up band work. The school furnishes a number of instruments to which the pupils have access.

Beginner's Orchestra.

Open to any student who can play a musical instrument or is interested in learning to play any instrument. Pianists will please make an appointment to play with the orchestra.

Bird Club.

Make the acquaintance of our feathered friends.

Boy Scouts.

The object of this activity is to prepare the Tenderfoot to become a Second Class Scout.

Burbank Club.

Experimenting with plant-life.

Camp-Cooking Club.

For seventh- and eighth-grade boys. Includes preparation of foods suitable for picnics, camping parties, etc.

Camp Fire Girls (in three sections).

Each group must contain not less than seven, and not more than twenty girls. No girl under 12 years of age is eligible. The purpose of the Camp Fire is manifold:

It instills the ideals of womanhood and citizenship in the growing girl.

It creates a love of the great out-of-doors.

It glorifies work.

What it means to be a Camp Fire Girl:

To be one of a comradeship of girls living in every state of the Union and in many foreign lands.

To join hands around the world with 150,000 other happy girls.

To be part of a large sisterhood which is having a good time out-of-doors.

Cartooning Club.

Catering Club.

"The way into a man's heart is through his stomach." The Catering Club puts this into practice.

Ciceronian Literary Society.

To encourage interest in literature and to learn the methods of a real literary society. Programs consist of music, readings, story-telling, etc.

City Sanitation Club.

Costume Club.

Was organized for the purpose of helping the high school girl appreciate the æsthetic values of dress. We are trying to bring out the quality of good taste by studying the principle and forms of design, and by actually designing dresses suitable for different types of girls.

Courtesy Club.

"Who does not delight in fine manners? Their charm cannot be predicted or over-stated. . . . It is even true that grace is more beautiful than beauty."—RALPH WALDO EMERSON.

Current History Club.

The object of this club is to have members read and learn of events now transpiring throughout the world. Reports are given by pupils based upon their reading of current events in *Literary Digest*, *Independent* and similar magazines as well as available newspapers. Pupils conduct the club, plan the programs, etc.

Debating Club for Boys.

Debating Club for Girls.

These two separate organizations have been formed for the purpose of acquainting the members with methods of organization in debating. They are also intended to stimulate interest in the conference debates, as well as to assist in preparing for competition in preliminary debates and the interscholastic debating season.

Dramatic Club.

The purpose of this activity is to acquaint the pupils with the world's best one-act plays, to teach the art of make-up and produce plays for the Community Lyceum. All pupils with dramatic ability are urged to enroll.

Double Quartette for Boys.

Double Quartette for Girls.

The personnel of these two separate organizations are chosen by Mr. Weaver, director of music, after tryouts, which have to be arranged for.

Excelsior Literary Society.

The purpose of this activity is to encourage interest in literature, and to learn the methods of a real literary society. Programs consist of music, readings, story-telling, etc.

Fancy Work Club (in two sections).

Open to seventh- and eighth-grade girls. Includes instruction in making simple embroidery stitches on scarfs and luncheon sets.

Filibuster Debaters.

Limited to seventh- and eighth-grade boys. This club practices parliamentary drill and engages in club and class debates. No peopless individuals wanted.

*First Aid Club.**Floriculture Club.*

This group of students makes a study of flower-growing, using the conservatory and campus for actual practice. Each student is responsible for his or her flower-bed.

Football Club.

Members of the football squad are required to take this activity. Chalk talks and board demonstrations.

Geometric Designs Club.

This activity has for its purpose the study of the place of geometric designs in architecture and in decorative arts of all kinds. These designs are produced in black and white and in colors. Part of the time is spent out-of-doors studying the geometric designs in nature, in the city, and about the school building.

*Glee Club for Boys.**Glee Club for Girls.**Going-to-College Club.*

The aim of this activity is to increase the desire for higher education by acquainting the pupils with the various colleges through catalogues, letters from students in school, and talks by alumni of higher institutions.

Gym Pyramid and Tumbling Club for Boys.

The purpose is to develop confidence and coördination in the boy who is interested in athletics. Boys who were in the club last year are urged to enroll again this year.

Gym Club for Girls.

Consists of games, folk-dancing, and drills.

Handiwork Club.

This includes bead work, wax work and a new kind of knitting.

Hi Girl Reserves.

This is the girls' organization corresponding to the Hi Y for boys.

Home Economics Club.

Includes the joyous side of cooking, sewing and home management.

Industrial Club.

Visits to industries.

Interior Decoration Club.

Plans and color schemes for home decorating is the keynote of this activity.

Keeping-Fit Club for Boys.

Keeping-Fit Club for Girls.

Kodak Club.

This activity is intended for students who own kodaks and are interested in photography. The time is spent in learning the best methods and applying them.

Library Methods Club.

Little Theatre Club.

The purpose of this activity is to acquaint the pupil with the leading one-act plays in America. Plays are produced at regular intervals, in which each student is given a chance to participate.

Magazine Club.

The purpose of this Club is to find how much real pleasure can be derived from reading. The material used is the great amount of good and interesting literature published in modern magazines.

Marketing Club.

Mathematical Club, for Games and Recreation.

Movie Club.

Open to all students. Educational and instructive pictures of all kinds are shown.

Mythology Club.

Myths of different lands are read and discussed. This is a very interesting activity, and no outside preparation is required.

Needlework Club.

This activity gives the girls a chance to learn the art of needlework and some fancy embroidery stitches.

Novel Club.

Reading and discussion of novels that are particularly interesting to girls. Each girl will be expected to furnish an approved book for use in the Club.

Oklahoma Folk Lore Club.

This club makes a study of the early life of the Indians, pioneers and animals in the territory now known as the State of Oklahoma. Various Indian tribes are studied in a comparative manner. Many Indian legends and tales are told and read. We always have several "Old Settlers" tell us of their personal experiences.

*Oral Reading Clubs.**Patriotic Club.**The "Pep Hounds." "The Spirit Stokers of Okmulgee High School."*

(These boys dressed in matador clothes take it upon themselves to handle all the public functions of the school, by ushering, taking tickets, carrying chairs, preparing the stage, etc. They also form the nucleus of the "rooters" for all games.)

*Poetry Club.**Printers' Club.**Public Speaking Club.*

This club aims at the development of forceful pupil speakers. Short extempore talks on modern problems, political, social and industrial, and on interesting books, people, and plays are some of the interests of the club.

Radio Club.

Open to any student interested in radio. No preparation necessary.

Reading Club.

This club is offered to create an interest in the best juvenile books.

Reed Basketry for Boys.

This activity runs throughout the year and is for boys only. The work taken up consists of studies of the different materials used in the actual construction of baskets, trays, plant-stands, etc., and probably harder and more advanced projects, depending upon the ability of the pupils. All boys entering should go in with the intention of buying the finished article.

Social Service Club.

Study of the problems, agencies, and methods of social service, such as probation, crime, poverty, etc., with a view of developing an appreciation and understanding of social service work. Study of actual cases and field work are included.

School Advertising Club.

"The right hand of the 'Pep Hounds'."

Science Play Club.

Scrap Book Club.

Material highly interesting to each individual member is used in the scrapbook.

Short Story Club.

The purpose of this activity is to further appreciation of the short story both in its technique and its function and relation to modern life. Not only American short stories are read, but also some foreign ones.

Sociology Club.

Problems of sociology in this city are given attention and the club makes trips of inspection over the city.

Student Council.

This is an elective group, made up of two representatives from each advisory group.

Teachers' Training Club.

Organized for pupils who are interested in the teaching profession. Visit to the grades adds interest to the course.

Tennis Club.

For six boys and six girls who are proficient in the art of playing tennis.

Travel Club.

This is an activity where different lands and countries are studied by means of slides and pictures taken from magazines. The *National Geographic* is often used and as pictures are thrown on the screen, the pupils report about the scenes and the country where they were taken. After "seeing America first," we shall study the foreign countries.

Trips to Other Worlds.

The chief aim of this activity is to have the pupils gain a broad general understanding of the wonders of the universe that surrounds him and to know the most interesting facts about the solar system, comets, meteors, and the most famous constellations. The interest in this activity is enhanced through the use of the new Radium Star Chart.

Visits to the Stars.

During one-third of the time you live the stars are visible. You will see these stars night after night all your life. Do you know them? Do you know how far these stars are from the earth and how big they are? Do you know why the sun is hot? Do you know where shooting stars come from? In this activity an attempt is made to answer such questions.

*Writers' Club.**Woodcraft and Archery Club for Boys.*

This activity consists of :

1. The study of the history of archery.
2. The materials used in the construction of bows and arrows.
3. The actual construction of bows and arrows of hickory.
4. A contest in archery, following the rules of archery as found in scout craft, the winner to receive his bows and arrows as his prize. Other members of the club must pay for materials used.

CHAPTER V

METHODS OF ADMINISTRATION

I.

THE difficulty of formulating in a junior high school courses of study which attempt to take account of the modern principles of education is surpassed only by that of constructing an administrative program which will admit of the proper flexibility. Especially is this true when a real attempt has been made to take into consideration individual differences not only in the course of study, but by homogeneous grouping and continuous provision for individual adjustments. The problem is still further complicated by the practical necessity and public obligation of utilizing all available space every hour of the day. Also the fact that the activities and most of the broadening and finding courses are entirely elective, thus making any prediction as to size of classes little better than a guess, adds to the intricacies of the administrative puzzle.

The very nature of the scheme used in this experiment forced a deviation from the usual practices employed by school principals in program-making. In the seventh and eighth grades of the traditional junior high school, or six-year high school,—if we can speak of anything as being traditional in schools of such tender years—most of the subjects are offered for the entire year, or at least for one semester, although many of them appear on the program only once, twice, or three times a week. In the scheme used here, every subject with the exception of the leisure-time activities appears daily during any one quarter. In other words, instead of offering four part-time subjects, one of which comes twice a week and the other three, once a week, the Okmulgee plan presents each of the four subjects daily, but allows each to run for only one quarter. This intensifies the work and prevents the dissipation of energy and the cutting up of the school program. In fact, it should appeal to those charged with the making of school programs, for it tends to simplify these

problems considerably. The writer feels that it also has advantages from the standpoint of the pupil, teacher, and subject matter, although for conclusive proof the results of further experimentation must be awaited.

Below is given a program of study for seventh, eighth, and ninth grades. This program could be adapted to any junior high school, or the first three years of any six-year high school which has an enrollment of three hundred or more in grades seven to twelve inclusive. It is particularly well adapted to schools having enrollments of from five to fifteen hundred in these grades.

Seventh Grade

The following subjects are required:

1. English, including literature, composition, writing, spelling and grammar. Not less than one-half the time to be devoted to literature. Forty to fifty minutes daily.¹
2. Citizenship, including a rather complete study of the city and county governments with their history and geography backgrounds. Forty to fifty minutes daily.
3. Mathematics, including the practical portions of arithmetic and algebra through simple equations, and the conception of form from geometry. Pupils should be kept up to standard in the fundamental processes, but not more than one-half of the time should be spent with this work. Forty to fifty minutes daily.
4. Physical Education and Health. Sexes separate. Wholesome physical exercise, personal health talks and demonstrations. Forty to fifty minutes daily.
5. Combination Course, consisting of four nine-weeks courses, one each in art appreciation, music appreciation, penmanship-spelling, and geography. Each of these meets from forty to fifty minutes daily for nine weeks.
6. Advisory Period. This period is used for announcements, personal conferences, etc. Ten to fifteen minutes in length, usually prior to the first forty- or fifty-minute period of the day.
7. Assembly, or Activities. The assembly period is the fifth of the five activity periods of the week. During each of the other four periods the pupil takes some one of the activities.

¹ For complete details of the first five courses, see Chapter IV.

In the one assembly period per week, the program consists of speaking, announcements, school programs, music, plays, and the like, and is thirty to forty minutes in length.

8. The Broadening and Finding Course in Science is also required. Forty or fifty minutes for nine weeks.

Electives: In addition to the above required courses, the pupil in the seventh grade is given his choice of three other broadening and finding courses from the list of those available for seventh year pupils. This list is given in Chapter IV. The pupils are urged to select their broadening and finding courses from representative fields, and not to take them all along one line of study.

Eighth Grade

The following subjects are required:

1. English II, including the same type of work as listed for the seventh grade, except it is more advanced. Still more stress is laid on literature and less on the tools of English. Forty to fifty minutes daily.
2. Citizenship II, including the study of state and national problems, with their history and geography backgrounds.
3. Mathematics II. Includes more algebra, geometry and practical arithmetic, as well as simple problems from surveying and mechanical drawing. Many fields of more advanced mathematics are explored. Forty to fifty minutes daily.
4. Physical Education and Health. The same as outlined for the seventh grade.
5. Combination Course. The same as outlined for the seventh grade.
6. Advisory Period. Same as outlined for the seventh grade.
7. Assembly, or Activities. Same as outlined for the seventh grade.
8. The Broadening and Finding Course in Science is also required here, as in the seventh grade, except in the cases of those pupils who are dropping out of school to go into a vocation within the next six months or a year.

Electives: Pupils may elect three nine-weeks courses, or one eighteen and two nine-weeks courses, or as explained above, two eighteen-weeks courses. He has a choice of all the broadening

and finding courses listed for the seventh and eighth grades in Chapter IV.

Ninth Grade

The following subjects are required:

1. English III, introducing technical composition and rhetoric, although not over one-fourth to one-half the time should be devoted to these phases. Literature should be stressed. Forty to fifty minutes daily.
2. Citizenship III, or the Background to American History. Students who have not taken Citizenship I or II are required to take Citizenship III; the others are required to take the background to American History, which combines ancient, mediaeval and modern history in one course.
3. Advisory Period. Same as outlined for the seventh grade.
4. Assembly or Activities. Same as outlined for the seventh grade.
5. Physical Education and Health. Same as outlined for the seventh grade.

Electives: The pupil may choose two of the following courses: general mathematics, algebra, cooking, sewing, Latin, Spanish, French, journalism, any of the commercial subjects, general science, music, art, or any of the shop courses including printing, sheet metal, machine shop, electricity, automobile shop and the like.

Tenth, Eleventh, and Twelfth Grades

All subjects in these three grades are elective, except that two units of English and one unit of American History are required.

It is understood that in all grades the pupils are required to spend four thirty- or forty-minute periods each week in activities chosen from the list which has been presented in Chapter IV, the assembly period making the fifth period of the week.

In order to further clarify the idea, a typical seventh-grade card is presented in Table II (A, B, C and D).

In the schedules presented in Table II a five-minute intermission has been used between periods for the sake of convenience in computing. This may of course be reduced if the administrator desires.

TYPICAL PROGRAM CARD

TABLE II-A. SEVENTH GRADE—FIRST QUARTER 1923-1924

Periods	DAYS				
	Monday	Tuesday	Wednesday	Thursday	Friday
8:35 A.M.— 8:45 A.M.	Advisory	Advisory	Advisory	Advisory	Advisory
8:50 A.M.— 9:35 A.M.	Citizenship	Citizenship	Citizenship	Citizenship	Citizenship
9:40 A.M.—10:25 A.M.	Science (B & F)	Science (B & F)	Science (B & F)	Science (B & F)	Science (B & F)
10:30 A.M.—11:15 A.M.	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
11:20 A.M.—12:05 P.M.	Art Appreciation (Combina- tion)	Art Appreciation (Combina- tion)	Art Appreciation (Combina- tion)	Art Appreciation (Combina- tion)	Art Appreciation (Combina- tion)
12:05 P.M.—12:35 P.M.	LUNCH				
12:40 P.M.— 1:10 P.M.	Assembly	Travel Club (Activity)	Boy Scouts (Activity)	Burbank Club (Activity)	Glee Club (Activity)
1:15 P.M.— 2:00 P.M.	English	English	English	English	English
2:05 P.M.— 2:50 P.M.	Physical Education	Physical Education	Physical Education	Physical Education	Physical Education
2:55 P.M.— 3:40 P.M.	Study Hour or Dismiss	Study Hour or Dismiss	Study Hour or Dismiss	Study Hour or Dismiss	Study Hour or Dismiss

TABLE II-B. SEVENTH GRADE—SECOND QUARTER 1923-1924

Periods	DAYS				
	Monday	Tuesday	Wednesday	Thursday	Friday
8:35 A.M.— 8:45 A.M.	Advisory	Advisory	Advisory	Advisory	Advisory
8:50 A.M.— 9:35 A.M.	Citizenship	Citizenship	Citizenship	Citizenship	Citizenship
9:40 A.M.—10:25 A.M.	Auto. Repair (B & F)	Auto. Repair (B & F)	Auto. Repair (B & F)	Auto. Repair (B & F)	Auto. Repair (B & F)
10:30 A.M.—11:15 A.M.	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
11:20 A.M.—12:05 P.M.	Geography (Combina- tion)	Geography (Combina- tion)	Geography (Combina- tion)	Geography (Combina- tion)	Geography (Combina- tion)
12:05 P.M.—12:35 P.M.	LUNCH				
12:40 P.M.— 1:10 P.M.	Assembly	Short Story (Activity)	Radio (Activity)	Short Story (Activity)	Glee Club (Activity)
1:15 P.M.— 2:00 P.M.	English	English	English	English	English
2:05 P.M.— 2:50 P.M.	Physical Education	Physical Education	Physical Education	Physical Education	Physical Education
2:55 P.M.— 3:40 P.M.	Study Hour or Dismiss	Study Hour or Dismiss	Study Hour or Dismiss	Study Hour or Dismiss	Study Hour or Dismiss

TABLE II-C. SEVENTH GRADE—THIRD QUARTER 1923-1924

Periods	DAYS				
	Monday	Tuesday	Wednesday	Thursday	Friday
8:35 A.M.— 8:45 A.M.	Advisory	Advisory	Advisory	Advisory	Advisory
8:50 A.M.— 9:35 A.M.	Citizenship	Citizenship	Citizenship	Citizenship	Citizenship
9:40 A.M.—10:25 A.M.	Journalism (B & F)	Journalism (B & F)	Journalism (B & F)	Journalism (B & F)	Journalism (B & F)
10:30 A.M.—11:15 A.M.	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
11:20 A.M.—12:05 P.M.	Music Appreciation (Combina- tion)	Music Appreciation (Combina- tion)	Music Appreciation (Combina- tion)	Music Appreciation (Combina- tion)	Music Appreciation (Combina- tion)
12:05 P.M.—12:35 P.M.	LUNCH				
12:40 P.M.— 1:10 P.M.	Assembly	Athletic Club (Activity)	Radio (Activity)	Athletic Club (Activity)	Glee Club (Activity)
1:15 P.M.— 2:00 P.M.	English	English	English	English	English
2:05 P.M.— 2:50 P.M.	Physical Education	Physical Education	Physical Education	Physical Education	Physical Education
2:55 P.M.— 3:40 P.M.	Study Hour or Dismiss	Study Hour or Dismiss	Study Hour or Dismiss	Study Hour or Dismiss	Study Hour or Dismiss

TABLE II-D. SEVENTH GRADE—FOURTH QUARTER 1923-1924

Periods	DAYS				
	Monday	Tuesday	Wednesday	Thursday	Friday
8:35 A.M.— 8:45 A.M.	Advisory	Advisory	Advisory	Advisory	Advisory
8:50 A.M.— 9:35 A.M.	Citizenship	Citizenship	Citizenship	Citizenship	Citizenship
9:40 A.M.—10:25 A.M.	Instrumental Music (B & F)	Instrumental Music (B & F)	Instrumental Music (B & F)	Instrumental Music (B & F)	Instrumental Music (B & F)
10:30 A.M.—11:15 A.M.	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
11:20 A.M.—12:05 P.M.	Penmanship and Spelling (Combina- tion)	Penmanship and Spelling (Combina- tion)	Penmanship and Spelling (Combina- tion)	Penmanship and Spelling (Combina- tion)	Penmanship and Spelling (Combina- tion)
12:05 P.M.—12:35 P.M.	LUNCH				
12:40 P.M.—1:10 P.M.	Assembly	Orchestra (Activity)	Vocational Information (Activity)	Orchestra (Activity)	Glee Club (Activity)
1:15 P.M.— 2:00 P.M.	English	English	English	English	English
2:05 P.M.— 2:50 P.M.	Physical Education	Physical Education	Physical Education	Physical Education	Physical Education
2:55 P.M.— 3:40 P.M.	Study Hour or Dismiss	Study Hour or Dismiss	Study Hour or Dismiss	Study Hour or Dismiss	Study Hour or Dismiss

If the pupil should continue in the eighth grade, his program would be similar to that shown in Table II for the seventh grade, except that he could select still other activities and broadening and finding courses.

A study of Table II shows that this pupil had an opportunity to sample nine activities in all, namely:

Travel Club	Athletic Club
Boy Scouts	Radio Club
Burbank Club	Orchestra
Glee Club	Vocational Information
Short Story Club	

as well as four broadening and finding courses:

Science	Journalism
Automobile Repairing	Instrumental Music

and also to give full time to the fundamental subjects and the combination course which included art and music appreciation and physical education; yet during any one of the four quarters his program did not consist of more than five subjects at any one time, excepting the activities.

II

Let us now present programs for schools of smaller size. Following is given a typical program which was worked out in a small school where there were, above the sixth grade, one hundred and sixty-five pupils, five teachers, and the superintendent.

The enrollment distribution by grades was as follows:

<i>Seventh</i>	<i>Eighth</i>	<i>Ninth</i>	<i>Tenth</i>	<i>Eleventh and Twelfth</i>
35 pupils	30 pupils	35 pupils	30 pupils	35 pupils

This school is working the broadening and finding plan according to the following scheme:

<i>Seventh Grade:</i>	<i>Eighth Grade:</i>
English (1) ¹	English (1)
Citizenship (2)	Citizenship (2)
Mathematics (3)	Mathematics (6)
Broadening and Finding	Broadening and Finding
Science (3)	Science (3)
Activities	Activities

¹ The numbers following the subjects refer to the teachers who handle these subjects.

The broadening and finding courses listed in the column on the left below are the ones from which the pupils can choose:

<i>Seventh and Eighth Grades:</i>	<i>Ninth Grade:</i>
Debating (1)	English (1)
Elocution (1)	Citizenship or History (2)
Cooking (4)	Mathematics (6)
Sewing (4)	General Science (3)
Science (3 courses) (3)	Cooking (4)
Manual Training (2 courses) (5)	Activities
Agriculture (5)	
<i>Tenth Grade:</i>	<i>Eleventh and Twelfth Grades:</i>
English (1)	English alternated (1)
History (2)	American History and Citizenship alternated (2)
Mathematics (3)	Advanced Science (3), Home Economics (4), or Manual Training (5) are alternated or taken with sophomores
Sewing (4)	Vocational Agriculture (5)
Manual Training (5)	Activities
Activities	

The numbers following the subjects refer to the teachers who handle these subjects, as explained below:

Teacher (1) handles the four English classes and one period per day of broadening and finding courses for the seventh and eighth grades—debating for two quarters, and expression for two quarters. This would make five periods per day, with activity periods four times per week.

Teacher (2) handles the four citizenship and history classes and all high school music, together with four activity periods per week.

Teacher (3) has seventh- and tenth-grade mathematics, ninth-grade science, eleventh- and twelfth-grade advanced science, and has one period per day in broadening and finding science for the seventh- and eighth-grade pupils, teaching nature study, the first quarter, physical science, the second quarter, floriculture and landscaping, the third quarter, and agriculture, the fourth quarter. This teacher also handles school athletics and four activities a week.

Teacher (4) has the upper grade home economics for two periods a day, ninth-grade home economics for two periods a day, eighth-grade cooking and sewing for one period a day during one semester, and the seventh- and eighth-grade broadening and finding courses in cooking and sewing for one quarter. This teacher handles four activity periods a day.

Teacher (5) handles vocational agriculture for three periods, manual training for two periods, and four broadening and finding courses of manual training of nine weeks each.

Teacher (6), the superintendent, handles eighth- and ninth-grade mathematics.

Among the activities that are presented to the pupils are:

<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>
Literary Societies	Musical and Dra-	Going-to-College
Travel Club	matic Organiza-	Club
Kodak Club	tions	First Aid
Catering for Special		Nature Study
Occasions		
<i>Thursday</i>	<i>Friday</i>	
Same as Tuesday	Assembly	

A typical seventh- or eighth-grade program card for this organization will be similar to the one presented for the seventh grade in Table II.

If the superintendent had desired the English teacher to handle both the seventh- and eighth-grade English classes, it would have been necessary to fit the eighth-grade program into the seventh so that these English classes would not recite at the same time. This of course could easily have been done. The program of this school contains all the features of the program offered for the metropolitan high school previously described except for the combination course² and the fact that there are electives among the broadening and finding courses and the activities. The combination courses could have been added with little difficulty by assigning more work to each teacher, or by employing an additional instructor. In the above situation the plan was developed

¹ See pages 15 and 16.

for a six-year high school, for the community was too small to operate a junior high school as a separate unit.

III

Although it is usually unwise to over-enrich the curriculum in very small schools, nevertheless some advantages at no more cost can be had from enrichment in even the rural districts. Below is presented a program as worked out for a small country school where there are two teachers and the superintendent for the work above the sixth grade.

The enrollment last year was:

<i>Seventh and Eighth Grades</i> <i>(under One Teacher)</i>	<i>Ninth Grade</i>	<i>Tenth Grade</i>
35 pupils	9 pupils	2 pupils

In this school one teacher who was receiving \$1125.00 was giving full time to the ninth and tenth grades; the superintendent of schools at a salary of fifteen hundred dollars, was teaching four classes in the ninth and tenth grades; and one teacher at a salary of nine hundred dollars was teaching the seventh and eighth grades. Hence the grade teacher was teaching 35 pupils, while one teacher and the superintendent were teaching 11 pupils in the two higher grades.

This community had the laudable ambition to be accredited and because some influential people had sons and daughters whom they wished to have stay at home and finish school, the town was willing to go to considerable expense for a very few pupils while the remainder of the school suffered. Under this scheme one teacher, with less preparation and less salary than the other two, handled three times as many pupils as the other two. The high school teacher took care of the ninth-grade English, tenth-grade English, ninth-grade and tenth-grade mathematics, and ninth-grade Latin. The superintendent handled ninth-grade history, tenth-grade history, a semester of civics, a semester of physiology, a semester of agriculture, and a semester of physical geography. Under this arrangement the average instruction-cost per pupil was \$25.73 for the seventh- and eighth-grade pupils and \$193.18 for the high school pupils, allowing two-thirds of the superintendent's time and salary for instruction.

Below is the scheme which gave the seventh- and eighth-grade

pupils much better instruction without impairing that given to ninth- and tenth-grade pupils. Under this scheme costs and opportunities are equalized and the 35 pupils in the seventh and eighth grades receive a taste of some of the subjects offered in the high school as well as the opportunity to come in touch with the better prepared teachers of the upper grades. In this scheme we were compelled to keep the same instructors and offer the same kind of work. We were also somewhat hampered by the fact that the seventh- and eighth-grade instructor was not prepared to do the high school work.

Enrollment by grades:

Seventh Grade

19 pupils

English (1)¹
 Citizenship (1)
 Mathematics (1)
 Expression of Debating, first
 quarter (2)
 Vocational Information, second
 quarter (2)
 Agriculture, third quarter (3)
 Nature Study, fourth quar-
 ter (3)
 Activities

Eighth Grade

16 pupils

English (1)
 Citizenship (1)
 Mathematics (1)
 Agriculture, first quarter (3)
 Nature Study, second quar-
 ter (3)
 Expression or Debating, third
 quarter (2)
 English-Latin, fourth quar-
 ter (2)
 Activities

Ninth Grade

9 pupils

English (2)
 Citizenship (3)
 Mathematics (2)
 Latin (2)
 General Science (3)
 Activities

Tenth Grade

2 pupils

English (2)
 History (3)
 Mathematics (2)
 Agriculture, alternating with
 General Science (3)
 Civics (one-half unit)
 Activities

Teacher (1)³ under this arrangement handles six periods per day, English, citizenship, and mathematics in the seventh grade and English, citizenship, and mathematics in the eighth grade. This teacher also handles two activity periods per week. Teacher (2)

¹ The number after the subject refers to the teacher.

teaches ninth-grade English, tenth-grade English, ninth-grade mathematics, tenth-grade mathematics, ninth-grade Latin, with four quarter-year courses; namely, expression or debating and vocational information in the seventh grade, and expression or debating and English-Latin in the eighth grade. This teacher also handles two activity periods a week.

The third teacher, the superintendent, teaches ninth- and tenth-grade history, general science alternated with agriculture, two quarter-year courses in science in the seventh grade; namely, nature-study and agriculture, and the same two quarter-year courses in the eighth grade. This teacher also handles two activity periods per week.

The activities that are offered under this arrangement are:

<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>
Literary Society	Chorus	Nature Study
		Debating
<i>Thursday</i>	<i>Friday</i>	
Chorus	Athletics or Assembly	

IV

The following suggestions are made in connection with activities to be offered in smaller schools: Part of the regular school day should be spent in activities. Each teacher of the force can offer something that will be of value in the recreational life of the child. These activities should be offered, not at the close of the school day, but at some time in the regular program, say, between the third and fourth periods in the morning, or between the fifth and sixth periods, or some time in the mid-afternoon. It has been found best to have them immediately following lunch.

The following are some of the activities possible in even a small school:

<i>English Department</i>	<i>Citizenship Department</i>
Literary Societies	Travel Club
Dramatic Clubs	Going-to-College Club
Kipling Club	<i>Mathematics Department</i>
Modern Short Stories	Mathematic Games
<i>Science Department</i>	<i>Ancient Language Department</i>
Landscaping	Mythology Club
How-to-Treat-Your-Kodak	
Nature Study	

Almost any well prepared teacher who is willing can work up a good activity regardless of whether it is in her line or not.

A student may take three activities at one time or even four. Some of these activities may be six weeks in length, others, nine, and still others, half-year and year activities. The students in grades seven to twelve, inclusive, should be required to take some activity every day, and school credit ought to be given for this work. Twenty-four solid and two and one-half activity units should be required for graduation from a six-year high school (grades 7 to 12) the first year, and twenty-four solid and three activity units thereafter. The work done in the broadening and finding courses are credited as part of the twenty-four units. These activities are from thirty to forty minutes in length, except a few double period activities such as orchestra and football.

V

It will be noted that in all the schemes suggested a six-year high school has been assumed. It is true of course that the plan outlined for the first two years of the metropolitan six-year high school would be equally well suited for any junior high school. Although there are some admitted disadvantages in the six-year organization for secondary schools some forceful arguments can be put forward in its favor, especially in the case of towns and smaller cities.

In the broadening and finding work some of these points are:

1. Pupils in the lower grades seem to profit greatly by seeing the kind of work that is being done by the pupils of senior high school grades and are inspired to emulate them. This seems to have a direct favorable reaction upon the work of the broadening and finding courses, since the younger pupils have before them goals of accomplishment set by their older brothers and sisters and hence put forth every effort so that they may be able to take these heavier courses later. Even from a disciplinary standpoint our experience seems to indicate that the pupils of the tenth, eleventh, and twelfth grades are a help rather than a hindrance to those of more tender years. These older pupils are "school-broke" and daily set such examples in school loyalty and orderliness that the chief aim in the lives of the younger pupils seems to be to go about their own school business with the same dispatch. Of course, it was still desirable on many occasions and for many purposes, such as in literary and athletic contests, to

segregate the two groups, but the general impression of the faculty has been that the upper grades have felt a distinct responsibility for mothering the incoming pupils and the younger pupils have been influenced more often by the good points than by the undesirable ones.

2. From the administrative point of view the six-year arrangement has been particularly desirable for the broadening and finding work, for the high priced, well prepared instructors who know the work of the upper grades and who, in an ordinary high school, have taught only the smaller classes of the junior and senior years have devoted their time to the larger classes in the broadening and finding work. This means in most cases that the pupils in the seventh and eighth grades have been exposed to the best teaching that the school has to offer. This arrangement has also made for more continuity in the work of the pupils and those capable of going ahead in some subjects and not in others have been able to do so without inconvenience. In addition, eighth-, ninth-, and tenth-grade subjects could be carried at one time by one pupil.

3. From the departments' point of view the arrangement used in the six-year school proved to be most acceptable. It must be admitted that during the first year the scheme was tried out, several of the instructors objected to teaching "these kids," for they had been prepared for upper class work. Any superintendent who has employed a considerable number of teachers knows how many of them prefer the work of the tenth, eleventh, and twelfth grades to that of the junior high school. These instructors soon began to realize, however, that even from the selfish point of view the broadening and finding work was an excellent arrangement for them since they had an opportunity as never before to select just those pupils whom they thought would be most successful in their particular departments. As a result, after the first year most heads of departments were urgently requesting that either they or one of their best teachers be allowed to conduct broadening and finding work.

4. From a financial standpoint the six-year scheme offered decided advantages, since the city was able to have one well-equipped, well-manned high school, whereas if both a junior and senior high school with separate organizations had been undertaken, the two schools would have been weak in many respects.

TABLE III

PER-PUPIL COSTS FOR BROADENING AND FINDING COURSES FIRST NINE-WEEKS OF 1922-1923

Department and Teacher	Actual Enrollment	Average Enrollment	Average Daily Attendance	Salary Distributed to Broadening and Finding Courses	Per-Pupil Costs Based on Actual Enrollment	Per-Pupil Costs Based on Average Enrollment	Per-Pupil Costs Based on Average Daily Attendance
ENGLISH:							
1. Guyer.....	11	10.4	10.1	\$ 150.00	13.636	14.423	14.851
2. Guyer.....	9	9.0	8.5	150.00	16.667	16.667	17.647
Total or Average....	20	19.4	18.6	\$ 300.00	15.000	15.464	16.129
ART:							
3. Demaine.....	19	17.9	16.3	\$ 83.33	4.384	4.655	5.110
4. Demaine.....	28	22.4	21.1	83.33	2.976	3.720	3.949
Total or Average....	47	40.3	37.4	\$ 166.66	3.547	4.136	4.456
HOME ECONOMICS:							
5. Eads.....	23	22.4	21.9	\$ 100.00	4.348	4.464	4.566
6. Eads.....	22	22.2	22.0	100.00	4.545	4.505	4.545
7. Hensley.....	25	24.4	22.8	80.00	3.200	3.279	3.509
8. Stephens.....	24	19.6	18.8	80.00	3.333	4.082	4.255
9. Cox.....	24	23.3	22.1	90.00	3.750	3.863	4.072
Total or Average....	118	111.9	107.6	\$ 450.00	3.814	4.021	4.182
ANCIENT LANGUAGES:							
10. Maddox.....	14	13.9	12.7	\$ 100.00	7.143	7.194	7.874
MANUAL ART:							
11. Horning.....	17	16.7	13.8	\$ 120.00	7.059	7.186	8.696
12. Chapman.....	17	17.0	16.5	137.50	8.088	8.088	8.333
13. Chapman.....	19	19.0	17.6	137.50	7.237	7.237	7.813
14. Bowman.....	14	13.6	11.4	96.00	6.857	7.059	8.421
Total or Average....	67	66.3	59.3	\$ 491.00	7.327	7.406	8.280
COMMERCIAL:							
15. Dishman.....	17	17.0	15.2	\$ 100.00	5.882	5.882	6.579
16. Jordan.....	29	29.0	28.2	56.25	1.940	1.940	1.995
Total or Average....	46	46.0	43.4	\$ 156.25	3.397	3.397	3.600
SCIENCE:							
17. Estill.....	25	23.2	21.8	\$ 95.00	3.800	4.095	4.358
18. Estill.....	42	41.1	37.1	95.00	2.262	2.311	2.560
Total or Average....	67	64.3	58.9	\$ 190.00	2.836	2.955	3.226
AUTOMOTIVE:							
19. O'Neal.....	22	22.0	21.3	\$ 119.75	5.443	5.443	5.622
20. O'Neal.....	25	25.0	24.2	119.75	4.790	4.790	4.948
Total or Average....	47	47.0	45.5	\$ 239.50	5.096	5.096	5.264
ELECTRICAL:							
21. Moorhouse.....	26	26.0	24.5	\$ 120.00	4.615	4.615	4.898
PRINTING:							
22. Stevens.....	24	23.9	22.3	\$ 142.50	5.938	5.963	6.390
23. Barks.....	12	12.0	11.5	73.07	6.090	6.090	6.354
Total or Average....	36	35.9	33.8	\$ 215.57	5.988	6.005	6.378
GRAND TOTAL:	488	471.0	441.7	\$2,428.98	4.98	5.16	5.50

VI

Table III indicates the per-pupil costs for broadening and finding classes for the first nine weeks of the year 1922-1923. The first column shows the department and teachers. Columns 2, 3, and 4 give the register, the average enrollment and average daily attendance, respectively, in these classes. Column 5 shows the proportion of teachers' salaries distributed to the broadening and finding classes for the nine-weeks period. Column 6 shows per-pupil costs based on register, column 7 on average enrollment, and column 8 on average daily attendance.

Here can be noted a large variation between departments. An expression class was the most expensive, costing \$17.64 per pupil based on average daily attendance, while a commercial course in typewriting cost but \$1.99 for the same length of time. This variation is due to the fact that (1) only nine pupils elected expression while 29 were taught typewriting, and that (2) the expression teacher taught only three classes the first semester while the commercial teacher, counting double periods in which two different classes were handled, taught nine sections a day. Other local conditions had a decided influence in causing certain classes of pupils to avoid work in the expression department; then too, the department was new and was just being established. Practically all of the shop classes cost about \$6.00 per pupil for the nine weeks. Science cost the least,—\$3.22 per pupil. The average cost per pupil, based on average daily attendance for the nine-weeks period for all departments, was \$5.50.

The total amount of salary distributed to broadening and finding classes for the first nine weeks was \$2,428.98, an average of \$105.61 per class. This multiplied by four gives \$422.44, the theoretical cost of teaching a broadening and finding course for one year. Assuming that a teacher handles five classes a day and receives \$422.44 for each class, the theoretical cost of teaching broadening and finding classes would be \$2,112.20. This is more than the average high school teacher's salary and is due to the fact that these courses are offered largely by heads of departments or by shopmen who are receiving the highest salaries.

Thus far the discussion of costs has been based entirely on teachers' salaries. Table IV, pp. 72-73, attempts an analysis of costs in both regular and broadening and finding courses for all departments, based on the total expenditures by departments. Total ex-

penditures, as here used, includes not only teachers' salaries, but also the supplies, equipment, repairs, books, etc., used in the yearly budget of the department. Permanent equipment, which is classed as capital outlay, was not included. The budgets of the various departments were analyzed and the amount of money allowed under each fund was divided by two to estimate expenditures for one semester. The headings used are in accordance with the uniform classification of school expenditures used by the United States Bureau of Education.

Column 1 of Table IV shows the various departments in the Okmulgee High School. Columns 2, 3, and 4 show the total expenditures by departments for regular classes, for broadening and finding classes and the sum total of both. The heading Distribution of Total Expenditures by Funds is a combined expenditure for both regular and broadening and finding classes. The sub-headings of columns 5 to 12, inclusive, are self-explanatory. Columns 13 and 14 show the number of pupils enrolled in regular and broadening and finding courses. This enrollment is obtained from the average monthly enrollment of classes. Columns 16 and 17 show the average daily attendance for regular and broadening and finding classes. Columns 15 and 18 give the totals of both regular and broadening and finding classes of pupils enrolled and in average daily attendance. Columns 19 and 20 show the cost per pupil enrolled for the first semester in regular and broadening and finding courses. Columns 22 and 23 show the cost per pupil in average daily attendance in both regular and broadening and finding classes. Columns 21 and 24 give the cost per pupil enrolled in the Okmulgee system, and the cost per pupil in average daily attendance.

An analysis of the figures presented in Tables III and IV reveals almost unpardonable discrepancies, but with the results of such a study before us most of these disappeared the next semester.

In two cases the broadening and finding courses cost more than the regular work, namely:

1. Ancient languages. The regular course cost \$7.51 per pupil based on the average daily attendance as opposed to a cost of \$15.75 in the broadening and finding course. This was due to the fact first, that only a small number of pupils elected the

broadening and finding course here for the first quarter, and second, that the course was taught by the head of the department, the highest priced instructor in Latin.

2. English. The regular work cost \$6.85 per pupil based on the average daily attendance, and the English-Expression broadening and finding course cost \$32.26. The reasons for this condition were almost wholly unavoidable under circumstances then existing in this new department. During the semester the conditions were entirely changed and the costs of this broadening and finding course were brought down to normal.

The figures from all other departments show that broadening and finding courses cost less than the regular work. This is particularly true in the case of the automotive department where the costs were, respectively, \$58.95 and \$11.10 and in the electrical department where they were \$47.36 and \$10.81. This is made possible by our being able to teach much larger numbers in the lower grade work than in the upper vocational classes.

A study of the averages and totals indicates that the per-pupil cost in all the regular classes based on the average daily attendance was \$10.58 as opposed to \$12.06 for the broadening and finding classes. This would seem to indicate an increase of 13 per cent in the cost of the broadening and finding work over that of the regular work, but in the light of this cost-study the broadening and finding courses and the size of the classes were so rearranged that the broadening and finding courses were actually lower in cost than the regular courses.

It is true that since the broadening and finding courses are on an elective basis, occasions will arise when on account of the small number electing some course, the administration will be confronted with the problem of either cancelling the course or allowing the cost for that course to be out of proportion for that one quarter. This criticism, of course, is applicable to any system of elective subjects. In the light of our experience, however, the writer is confident that the broadening and finding courses can be offered at no more cost, and, in many cases, at less cost than the regular work. This is particularly true in the shop, science, and home economics subjects.

VII.

Although the results of broadening and finding work to date seem to have been most satisfactory, nevertheless it will be well to point out some of its weaknesses and dangers.

1. In the first place the purposes of the scheme are such as to be subject to gross misinterpretation on the part of the uninformed, and unless great care is exercised in educating the public in the desired goals, considerable trouble will be encountered. It is quite easy for the idea to become prevalent that merely a smattering of everything is being offered and nothing is taught intensively. This is a cry which quite easily catches and holds the public's attention and must be met by the administration by a thorough publicity campaign which definitely and persistently insists that the fundamentals will not be neglected and that the broadening and finding work is offered in addition to, not in place of, reading, writing, and arithmetic.

2. As pointed out above, many teachers may feel that this is only extra work. The wise principal or superintendent will picture most tactfully, not only the general educational values of this work, but also the personal advantages that will accrue to teacher and to department through broadening and finding courses.

3. The carrying forward of this enrichment scheme will also be much hampered by lack of training on the part of the teachers. It seems that the very best way of meeting this need is, first, to train the teachers who are already on the ground by means of carefully planned teachers' aid conferences; second, when employing new teachers to bring in only those who are thoroughly familiar and sympathetic with the general plan; and third, so to manipulate the program that the work is really a part of the regular assignment of teachers and not an addendum.

4. Another difficulty encountered is the proper marking of the pupils taking this work. Obviously, it would be unfair to offer a course wherein an attempt is made to see whether or not the child is interested in the work presented, and then to fail him because he is not interested; therefore, no child should be failed in broadening and finding work. He is given marks which are recorded in the office and he receives credit for the course, but his marks are not averaged with marks made in other courses. The fact that the pupils were acquainted with the scheme of marking did not seem to have any appreciable effect on their efforts to take full advantage of the work presented.

5. One of the chief difficulties in the introduction of the trial courses is the one which arises when the superintendent attempts to answer the instructor's question, "What shall I teach?" In

answering this question certain general *do's* and *don't's* can be laid down, such as:

Do not teach exactly what would be offered in the first nine weeks of a regular course.

Give subject matter that is worth while.

Offer a typical cross-section of future and higher courses in

TABLE
ANALYSIS OF COSTS IN REGULAR COURSE
COURSES, FIRS

Department	EXPENDITURES			DISTRIBUTION OF TOTAL EXPENDITURES BY FUNDS REGULAR AND BROADENING AND FINDING COURSES							
	Regular Courses	Broaden- ing and Finding Courses	Total	Salaries of Teachers	Supplies Used in Instruc- tion	Super- visors Salaries and Other Expenses	Repair and Re- place- ment of Ap- paratus Used in Instr. and Furni- ture	Equip- ment of Old Build- ings. In- struc- tional Appa- ratus	Equip- ment of Old Build- ings. Other Equip- ment	Equip- ment of Old Build- ings. Heat- ing, Light- ing, Plum- ing and Electrical and Furni- ture	Thrif
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Ancient Languages	\$ 1,282.50	\$ 200.00	\$ 1,482.50	\$ 1,470.00	\$ 2.50	\$.....	\$.....	\$.....	\$ 10.00	\$.....	\$.....
Art.....	721.67	353.33	1,075.00	1,000.00	75.00	.....	.....	.....	.....	.....	.....
Automotive.....	1,120.00	505.00	1,625.00	1,425.00	100.00	.....	50.00	17.50	32.50	.....	.....
Citizenship.....	6,462.50	.....	6,462.50	6,140.00	7.50	240.00	.....	25.00	50.00	.....	.....
Commercial.....	2,095.00	312.50	2,407.50	2,150.00	30.00	125.00	12.50	.....	20.00	20.00	50.00
Electrical.....	1,885.00	265.00	2,150.00	1,950.00	87.50	.....	.....	100.00	12.50	.....	.....
English.....	6,770.00	600.00	7,370.00	7,125.00	5.00	190.00	.....	.....	50.00	.....	.....
Home Economics.	4,110.00	1,015.00	5,125.00	4,100.00	400.00	200.00	50.00	250.00	17.50	107.50	.....
Mathematics.....	6,570.00	.....	6,570.00	6,310.00	55.00	190.00	.....	5.00	10.00	.....	.....
Manual Training..	2,622.00	1,228.00	3,850.00	3,260.00	250.00	240.00	50.00	.....	50.00	.....	.....
Modern Languages	1,069.75	.....	1,069.75	1,050.00	14.75	.....	.....	.....	5.00	.....	.....
Printing.....	2,060.08	469.92	2,530.00	2,375.00	62.50	.....	75.00	.....	5.00	12.50	.....
Science.....	3,177.50	380.00	3,557.50	3,375.00	150.00	.....	.....	25.00	7.50	.....	.....
TOTALS	\$39,946.00	\$5,328.75	\$45,274.75	\$41,730.00	\$1,239.75	\$1,185.00	\$237.50	\$422.50	\$270.00	\$140.00	\$50.00

NOTE: Percentage of Attendance in Regular Courses..... 91.40
Percentage of Attendance in Broadening and Finding Courses..... 93.82

the subject, including some of both the bright and attractive sections and also the drab ones.

Give within the limits of the time allowed and the abilities of the pupils all the information possible as to future life-work.

Explore the interests, aptitudes, abilities, and appreciations of the pupils—do not lose a genius.

IV

AND IN BROADENING AND FINDING
SEMESTER, 1922-1923

ENROLLMENT			AVERAGE DAILY ATTENDANCE			COSTS PER PUPIL BASED ON					
						Enrollment			Average Daily Attendance		
Regu- lar Courses	B and F Courses	Total	Regu- lar Courses	B and F Courses	Total	Regular Courses	B and F Courses	Total	Regular Courses	B and F Courses	Total
(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
185.1	13.9	199.0	170.7	12.7	183.4	\$ 6.93	\$14.39	\$ 7.45	\$ 7.51	\$15.75	\$ 8.08
67.4	40.3	107.7	62.3	37.5	99.8	10.71	8.77	9.98	11.58	9.42	10.77
21.2	47.0	68.2	19.0	45.5	64.5	52.83	10.75	23.83	58.95	11.10	25.19
873.6	.....	873.6	798.5	.....	798.5	7.40	.....	7.40	8.09	.....	8.09
811.7	46.0	857.7	276.4	43.4	319.8	6.72	6.79	6.73	7.58	7.20	7.53
43.9	26.0	69.9	39.8	24.5	64.3	42.94	10.19	30.76	47.36	10.81	33.44
1,070.1	19.4	1,089.5	988.3	18.6	1,006.9	6.33	30.93	6.77	6.85	32.26	7.32
166.2	112.0	278.2	153.3	108.0	261.3	24.73	9.06	18.42	26.81	9.40	19.61
915.1	.....	915.1	837.6	.....	837.6	7.18	.....	7.18	7.76	.....	7.76
81.4	66.4	147.8	71.9	59.2	131.1	32.21	18.49	26.05	36.47	20.74	29.37
144.6	.....	144.6	131.6	.....	131.6	7.40	.....	7.40	8.13	.....	8.13
134.6	35.9	170.5	123.7	33.8	157.5	15.31	13.09	14.84	16.65	13.90	16.06
81.4	64.3	145.7	71.1	58.8	129.9	39.04	5.91	24.42	44.69	6.46	27.39
4,096.3	471.2	4,567.5	3,744.2	442.0	4,186.2	\$ 9.75	\$11.31	\$ 9.91	\$10.58	\$12.06	\$10.82

Do not be responsible for making a failure by guiding a pupil into the wrong future course of life-work.

Do not make children feel that they must cram in order to pass examinations in these courses or any future work predicated upon these courses.

These courses test your teaching. Do not drive, but attempt to see in how many cases you can discover interests, and having discovered them, **guide them**.

If you have learned any new desirable methods of teaching, discuss them with the head of your department or the principal, and try them in these courses.

The above instructions are so general that, after all, the responsibility of finding what to teach is placed upon the teacher, but the administrator should make it possible through encouragement and through time made available, for the instructors of these courses to meet frequently with each other and discuss aims, methods, results, and suggestions for improvement. A great premium should be placed upon any written courses of study or projects which seem to indicate progress and the teacher making the contribution should be duly rewarded, first by commendation and in some cases by public acknowledgment, and second, by salary and promotion.

Any new movement is fraught with errors. Administrators will discover the broadening and finding work no exception to this general rule. One does not have to think long to conjure up many imagined and real difficulties, but when all is said and done, from the administrator's standpoint the chief difficulty will be the changing from an old to a newer way of doing things,—the breaking up of a few habits. All the results of this experiment seem to indicate that the results will be sufficiently gratifying to those in charge of the administration to make them feel more than repaid for the effort expended, especially since the administration seems to be easier than in a school operating under the old program.

CHAPTER VI

EVIDENCES OF EFFECTIVENESS AND DESIRABILITY

THE proof of the pudding is the eating.

Many schemes which have been introduced into the public schools have been retained for a short period and then become discredited since they did not produce a sufficient percentage of the results claimed for them to justify their continuance. Some results in educational procedure are objective, and hence measurable. Others are as yet not subject to any measuring rod which we now have.

In determining the results of our five-year experiment with broadening and finding courses unfortunately exact instruments of measure could not in all instances be applied. This has been due in some cases to the fact that ideal experimental conditions could not always be had, since, as stated in the foreword, the work was carried on in a public school along with hundreds of other things, and not in an experimental laboratory. If it had been possible to expose 10,000 seventh- and eighth-grade children to broadening-and-finding courses in twenty schools operating under various conditions in different parts of the country, and then to check up accurately for the following ten years not only the courses of study they pursued in the high school and university, but also the life-work which they chose and the measure of success which they attained, the experiment would be much more valid; but even under conditions such as these it would still be impossible to prove conclusively that an individual who is succeeding in the electrical world had chosen this field and had been successful because he had taken an electrical broadening and finding course in his junior high school years. It might have been that the same interest which led him to choose an electrical broadening and finding course in lieu of one in carpentry would have remained with him had there been no tryout course in electricity and he would have followed electrical work as his life pur-

suit anyway. There would be, however, a multiplicity of cases which would make for a better indication than that represented in our five-year experiment where the number of cases was limited.

In neither instance, however, can it be proved objectively that children are broadened by having tested work in many fields rather than by having followed the ordinary seventh- and eighth-grade procedure, although this could have been proved had tests been made of the range of information of those who had taken broadening and finding courses, and those who had not. It is reasonable to suppose, however, that pupils who have had the opportunity of working for nine weeks in each of six to eight different fields would have a broader range of knowledge, at least in these fields, than pupils who have never had such privileges.

There are, however, some evidences which point rather conclusively to the broadening and finding effect of these short courses, and equally or more important is the fact that many desirable school conditions have developed simultaneously with their introduction.

We now submit such evidence as we have that the broadening and finding courses are desirable in the junior high school grades.

1. Since the time of the first two years of their operation, there has been little doubt in the minds of any of the board of education as to the value of this work, although in many cases objections have been raised by the board on particular points and particular courses, objections which have often been followed up by beneficial changes. The scheme as a whole has with one exception received the unqualified endorsement and active support of every member of the board of education, and this in face of the fact that the personnel of the board has changed frequently. In Okmulgee, the board of education is particularly susceptible to the will of the people, both through the actual elections and through their sense of personal duty and obligation to their friends. Then too, their knowledge of the work was not superficial. During the five years, the major portion of at least ten board meetings was spent in discussing, sometimes very analytically, the good and poor points of this work. Theirs is the mature approval of business men interested in their children and their city.

2. The whole-hearted endorsement and approval of 95 per cent of all the voters, and of 98 per cent of the school patrons during

the five years the work has been carried on is reflected in the fact that during this period there have been five school elections, and for the first two years, and especially the second year, the elections centered around this issue particularly. In these cases even though the opposition was represented by splendid citizens, men of ability and aggressiveness, the stamp of approval was put on the work by overwhelming majorities. Since that time it has been accepted with a feeling of pride, the Chamber of Commerce, the civic bodies, the women's clubs and churches often making favorable comment in their literature and public meetings.

3. Of the 60 teachers who have taught broadening and finding courses during this five-year period, 55 have been whole-heartedly interested as is testified to by the long hours of careful work they have given to the preparation of the courses, arrangement of rooms and shops, and conferences, as well as by the numerous splendid and unsolicited suggestions they have frequently offered. Of the five who did not seem to be interested, four showed an equal lack of interest in the regular work and one was an excellent teacher of upper grade pupils but could not handle the disciplinary problems peculiar to seventh- and eighth-grade boys and girls.

Some quotations from a questionnaire sent to teachers in January, 1924, will be of interest here. One question was, What is your frank opinion of the value of broadening and finding courses for:

1. Guiding pupils into their life work (vocational)?
2. Assisting pupils in choosing their future courses of study?
3. For broadening and cultural purposes?

The opinions of the teachers as to Question 1 were:

Have aided materially in helping children to find out what particular field they are interested in, and what lines they do not care for, as a possible indication of their proper life vocation	32
Of great help especially to those children who contemplate leaving school before completion of high school	7
Children too immature to choose any probable life vocation....	12
Courses of very little, if any, assistance	4

Some of the teachers' opinions given in answer to Question 1 follow:

1. Public speaking courses are so distinctly broadening and cultural that I find them of little value in guiding pupils into

their life-work, yet the few cases we seem to discover where a boy wishes to take up public speaking as a help in a profession, such as law, or the girl who finds she wishes to go into public dramatic art, are of extreme importance.

2. I believe they lead rather a small percentage (my guess should be 12 per cent) into their proper fields of activity, and steer an equal or greater number away from unsuitable fields. Either function is of inestimable value.
3. It seems to me that this (vocational guidance) is probably the weakest of the three points. The boy or girl is hardly old enough to be guided to any great extent by these courses, except several cases where the boys and girls are from 16 to 18 years old.
4. The average broadening and finding pupil is too young to really consider seriously his choice of a vocation.
5. (A Latin teacher.) I have known of several boys who though considered failures by teachers and pupils in academic subjects, have found themselves, so to speak, in broadening and finding shopwork. They have become happy over their ability in certain vocations, have regained self-confidence and are now working successfully in their chosen fields.
6. Probably slight. Few keep decisions made at this time.
7. While pupils in these courses generally are too young to make an actual choice, I think a large majority of them gain knowledge that is of great value to them when they do reach the choosing-point later in life.
8. It is of very little assistance alone, but when followed by advanced subjects is of great value.
9. (From a music teacher.) I think that broadening and finding courses are of great value and aid in guiding pupils into their life work. If they are not assisted in making their choice directly, at least they are influenced somewhat in the general direction of the broadening and finding course they took.
10. I think broadening and finding courses are indispensable in finding what the life-work of the pupil should be.
11. I believe that these short courses guide for life-work more than is apparent now. How much influence they have cannot be ascertained since it is impossible to follow more than a small per cent of the pupils far enough to judge.

12. Life-work is found by broadening and finding courses; not only by these courses (prevocational courses), but by all such courses.
 13. I believe they are of partial aid, since they narrow the large scope down to a few choices, some of which in turn are eliminated by further study.
 14. I believe there is a great future if teachers were trained to present correct subject matter. In any event, the danger is as great as the possibility.
 15. I believe they are very valuable in this respect.
 16. (An English teacher.) I believe there is a danger of over-persuasion by prejudiced teachers.
 17. While I believe the value great, I see one danger; namely, that the influence of a broadening and finding course might stop further and maturer search for a vocation.
 18. (A mathematics teacher.) For children who drop out at the beginning of high school, I believe that these courses are of the utmost value, but for those who go on to high school and college I believe they are of little value.
 19. They will be most useful in their finding aspect for the older duller type of child, *i.e.*, particularly those interested in a means of early earnings.
 20. I believe they do assist in the general field, such as science, engineering and the like, but not in the particular branch, except in a few instances.
 21. Taking into consideration the value derived from both the working "into" and the working "out of" certain fields, I believe these broadening and finding courses are valuable factors.
 22. I think that the broadening and finding courses make pupils begin to think seriously of their vocations.
 23. I think that through these broadening and finding courses a pupil may feel the drift toward the right vocation.
 24. The broadening and finding courses hasten the pupils' choices of life-work. The parents become more interested, and advise their children earlier.
4. Since the introduction of the broadening and finding courses the retaining power of the junior high school as well as that of the senior high school, has been greatly increased. If we figure on a basis of the 1919-1920 enrollment as compared with the 1923-24 enrollment, the junior high school has a 45 per cent

greater retaining power in the latter year than in the former and the senior high school a 55 per cent greater holding power. These figures are based not on the absolute enrollment increases but are derived from Table IX where the enrollment for both the junior and the senior high schools is expressed in terms of what proportion in per cent the students of the junior and senior high schools are of all the students in grades 1 to 12, inclusive. Perhaps it might be more fair to compare the average of the last two years with the average derived from the figures of the year just preceding the introduction of the broadening and finding courses and the year of their introduction. When the computations are made in this way, namely by comparing the average of the two years immediately preceding the time when the broadening and finding courses had their effect with the average of the last two years that have just passed, we still find that the retaining power of the junior high school has increased 43 per cent and that of the senior high school 59 per cent.

In order that the reader may see all the figures used in these calculations, Tables V to IX are presented. Table V shows the total enrollment in all grades from 1918 to 1923. Table VI gives the same figures except that the pupils are grouped into four divisions, (1) primary, grades 1, 2, and 3; (2) intermediate, grades 4, 5, and 6; (3) junior high school, grades 7, 8, and 9; and (4) senior high school, grades 10, 11 and 12. Table VII presents the facts of Table V in percentages that the enrollment of each grade is of the total enrollment of the twelve grades.

TABLE V
TOTAL ENROLLMENT BY GRADES
1918-1923

School Year Begin- ning	GRADES *														Total
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	P.G.	Spec.	
1918	392	275	273	227	217	187	162	140	96	72	37	36	4	....	2,118
1919	468	362	293	264	234	219	153	130	119	83	63	45	....	....	2,433
1920	601	406	341	315	354	265	209	210	190	96	78	59	....	....	3,124
1921	624	463	406	398	321	318	334	214	213	152	93	67	4	....	3,607
1922	459	362	333	237	243	178	426	228	216	162	129	78	17	238	3,306
1923	418	379	349	376	255	228	362	249	238	188	136	107	6	259	3,550

* The figures I to XII refer to grades, P. G. to Post Graduate and Spec. to special classes for the underprivileged pupils.

TABLE VI
TOTAL ENROLLMENT BY GRADE GROUPS
1918-1923

School Year Beginning	Primary Grades (1 to 3)	Intermediate Grades (4 to 6)	Junior High School Grades (7 to 9)	Senior High School Grades (10 to 12)
1918	940	631	398	145
1919	1,123	717	402	191
1920	1,348	934	609	233
1921	1,493	1,037	761	312
1922	1,154	658 (238 special)*	870	369
1923	1,146	859 (259 special)*	849	431

* Enrollment in special classes—not included in enrollment given for primary, intermediate grades and junior high school.

TABLE VII
PER CENT OF TOTAL ENROLLMENT BY GRADES
1918-1923

School Year Beginning	GRADES												
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	P. G.
1918	18.5	12.5	12.9	10.7	10.2	8.8	7.6	6.6	4.5	3.4	1.7	1.7	0.2
1919	19.2	14.7	12.0	10.9	9.6	9.0	6.3	5.3	4.9	3.4	2.6	1.8	
1920	19.2	13.0	10.9	10.1	11.3	8.5	6.7	6.7	6.0	3.1	2.5	1.8	
1921	17.0	12.8	11.2	11.0	8.9	8.9	9.3	5.9	5.9	4.2	2.6	1.8	0.1
1922	13.9	10.9	0.1	7.2	7.4	5.4	12.9	6.9	6.5	4.9	3.9	2.3	0.5
1923	11.8	10.7	9.8	10.6	7.2	6.4	10.2	7.0	6.7	5.3	3.8	3.0	0.2

The significant fact in these tables is that although there have been in some years marked decreases in the enrollment of both primary and intermediate grades and in one case in the system as a whole, that of the junior and the senior high schools has been marked by a steady trend upward. There are two exceptions. The decrease in the junior high school between the years of 1922-1923 and 1923-1924 is due to the fact that in the year 1922-1923 a number of special-class pupils had their work in the junior high school building and were counted in the attendance

figures for the junior high school in 1922, while in 1923 they were counted with the special classes. Then too, the hard times in the oil fields and a special drive by the school authorities, brought a large number of over-age boys who were out of work into the seventh grade. This accounts for the large percentage (12.9) in the seventh grade for 1922-23. A slight defection in the senior high school can be noted between the years 1919-1920 and 1920-1921, but it is so small when we consider the otherwise generally increasing percentage in these grades as to be insignificant. The figures in Table VII clearly indicate that the increase in grades 7 to 12 for the last few years is far above normal.

The decrease in the per cent of enrollment in the first three grades as well as in grades 4 to 6 may be accounted for (1) by the elimination of over-age-ness and retardation in these grades and (2) by the fact that something is producing an unusual increase in the percentage of enrollment in the upper six grades. (Beginning with the year 1922-1923 all the over-aged and under-privileged children in grades 1 to 8 were placed in special classes. These percentages will be noted under special classes in Table VII. These pupils would be distributed for the most part in grades 3 to 8 if Okmulgee did not maintain opportunity rooms).

Table VIII shows the per cent of enrollment in each grade for grades 1 to 8, inclusive, for "Philadelphia," "Other Cities," and "Okmulgee." These data were copied from the *Philadelphia Survey of 1922*, and show clearly that the per cent of enrollment in the seventh and eighth grades far surpasses the per cent in these grades in Philadelphia and other cities even in spite of the fact that the lowest 5 to 10 per cent of Okmulgee's seventh- and eighth-grade pupils is counted in special classes and not included

TABLE VIII

COMPARISON OF PER CENT OF ENROLLMENT IN GRADES I TO VIII INCLUSIVE,
BETWEEN OKMULGEE, PHILADELPHIA AND OTHER CITIES
BASED ON FIGURES SECURED FROM PHILADELPHIA SURVEY OF 1922

	GRADES								
	I	II	III	IV	V	VI	VII	VIII	Special
Philadelphia.	17.4	14.6	14.2	13.6	13.1	11.4	8.4	6.8	
Other Cities.	18.3	13.9	13.8	13.6	12.6	11.1	9.1	7.3	
Okmulgee...	14.5	13.2	12.1	13.0	8.9	7.9	12.6	8.7	9.0

in the regular seventh- and eighth-grade figures shown in this table.

Table IX presents the facts a little more vividly. The per cent of enrollment was grouped for three-year periods, showing the total per cent of pupils in primary, in intermediate, in grades 7, 8 and 9—the usual junior high school grades—and in grades 10, 11 and 12, the senior high school grades. The figures for the past few years speak for themselves.

The year that the broadening and finding work was introduced into the schools grades 7, 8, and 9 enrolled only 16.5 per cent of the school population, whereas in 1923–1924, 23.9 per cent was enrolled, and the senior high school shows an increase of from 7.8 per cent to 12.1 per cent during the same period.

TABLE IX
PER CENT OF ENROLLMENT BY GRADE GROUPS
1918–1923

School Year Beginning	Primary Grades (1 to 3)	Intermediate Grades (4 to 6)	Junior High School Grades (7 to 9)	Senior High School Grades (10 to 12)
1918	43.9	29.7	18.7	6.8
1919	45.9	29.5	16.5	7.8
1920	43.1	29.9	19.4	7.4
1921	41.0	28.8	21.1	8.6
1922	34.9	20.0 (7.2 special)*	26.3	11.1
1923	32.3	24.2 (7.3 special)*	23.9	12.1

* Enrollment in special classes, not included in enrollment given for primary, intermediate grades, and junior high school.

Figures II and III show graphically the same facts. The special class pupils which made up a little over 7 per cent of the total enrollment, were not considered in making these graphs. The increased per cent of pupils in the upper six grades seems to point to the effectiveness of the present general school scheme and conditions at Okmulgee.

Of course it cannot be stated definitely just how much of this credit should be attributed to broadening and finding courses, for

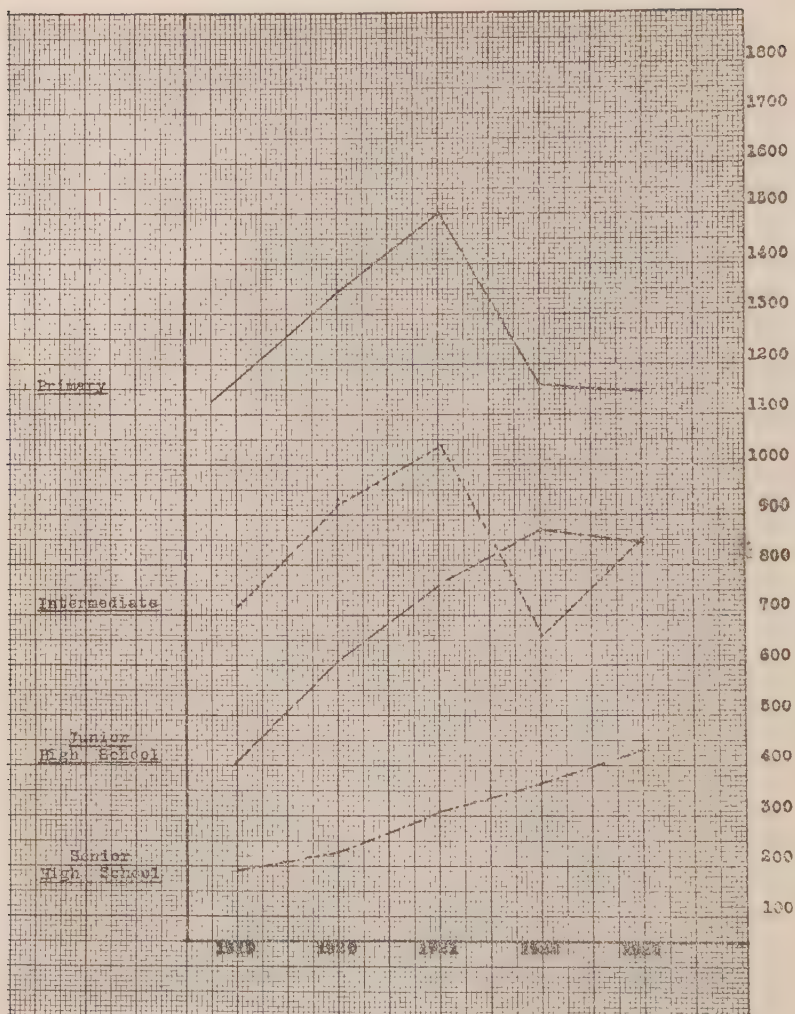


FIGURE II

TOTAL ENROLLMENT BY GRADE GROUPS, AS GIVEN IN TABLE VI

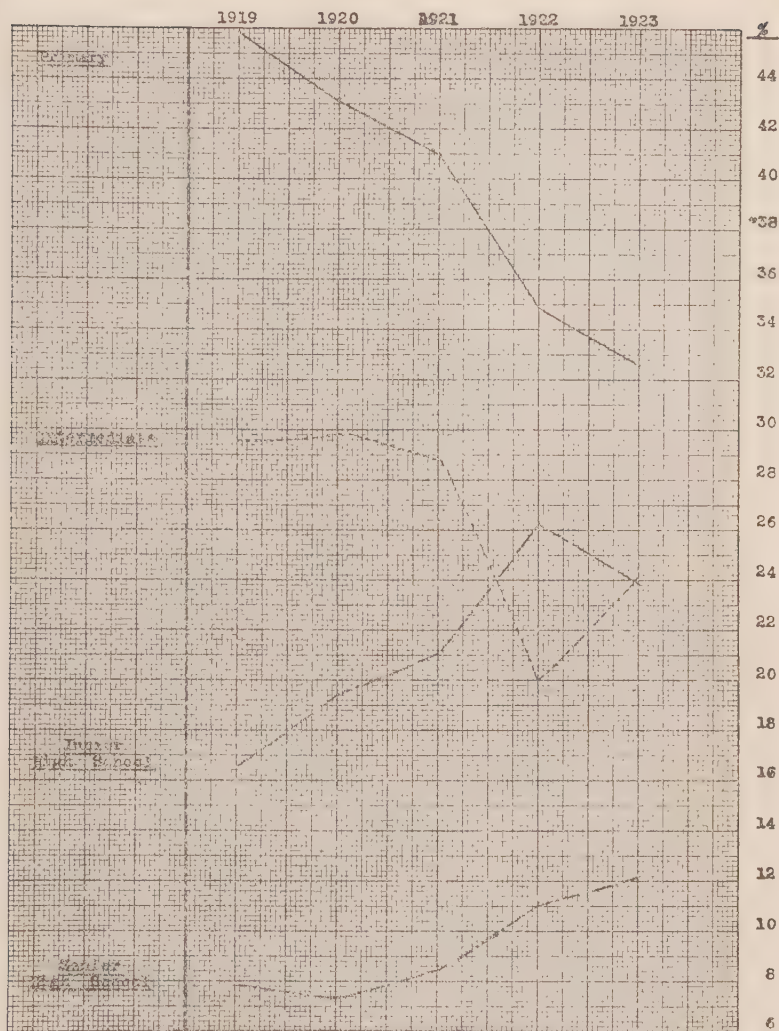


FIGURE III

PER CENT OF TOTAL ENROLLMENT IN GRADE GROUPS, AS GIVEN
IN TABLE IX

there has been some improvement in the quality of the teaching, equipment, and the like, but the broadening and finding courses constitute the distinctive change in the work of the seventh, eighth and ninth grades. Okmulgee High School (grades 7-12) when considered from the standpoint of the preparation of its teachers and the equipment of its classrooms and laboratories was in almost as good condition five years ago as today, for their teachers have always held Bachelor's degrees or better, and the equipment and laboratories have been possibly a little above average.

In Table X a comparison of our figures with the medians of the 33 cities listed by F. C. Ayer, director of the department of research of the schools of Seattle, Washington,¹ is made.

TABLE X
COMPARISON OF RETENTIVE POWER OF OKMULGEE SCHOOLS WITH THE
MEDIAN OF 33 CITIES AS LISTED BY AYER

	Senior High School Pupils	Junior High School Pupils	Elementary School Pupils
Medians of 33 cities as listed by Ayer.	10.7	23.1	66.4
Okmulgee (See Table IX)	12.1	23.9	63.8

If, as Ayer contends, "The holding power of the high school is one of its first measures of success," then it must be admitted that according to this measure both the junior high school and the senior high school of Okmulgee have been more successful since the introduction of the broadening and finding courses than before.

While it is true that there are a few other cities with an equal or a larger percentage of all their school population in their senior high school, it can be said in all probability that their growth was a very gradual one, extending over a period of a good many years, while the improvement in the Okmulgee situation came about in four years.

Therefore, we believe we are justified in contending, especially if we grant that there are other contributing factors, that enrichment courses which have enabled pupils to choose interesting work have played a large part in retaining the pupils in school,

¹ "Retention in High School," *School Review*, June, 1924, Vol. XXXII, No. 6, pp. 404-405.

thereby raising the standard of community service rendered by the high school.

5. In order to determine whether or not the pupils were keeping up in the three R's as well as in their enrichment course work, the Stanford Achievement Tests were given quarterly. Table XI shows the results of these tests with the seventh- and eighth-grade pupils in December 1923.

In this table the sections 7-1, 7-2, etc., refer to the highest or best sections of the low seventh grade and 7-6 to the lowest section of the low seventh grade; 7-11 to the highest and 7-12 to the poorest section of the high seventh grade; 8-1 to the highest and 8-5 to the poorest section of the low eighth grade and 8-11 to the highest and 8-14 to the poorest of the high eighth grade. All the figures given in the table are medians.

As was explained in Chapter III these sections were chosen on the basis of five criteria:

1. Group mental tests. The Terman Group, the Otis and the National Intelligence Tests.
2. Individual mental tests. The Terman revision of the Binet-Simon.
3. Tests in the educational subjects:
Woody-McCall and Curtis in Arithmetic;
Buckingham-Ayres and Horn-Ashbaugh in Spelling, etc.
4. Results of home visits made twice each year by the teacher-advisor and supplemented in special cases by the school advisors of boys and girls, and officials of the health and attendance departments.
5. Teachers' opinions and accumulated grades.

While the figures given in the low seventh grade show that in every section from 7-1 or the highest, where the median I.Q. is 114, to 7-6 or the lowest section, where the median I.Q. is only 81.5, the A.Q. is far above average, it might be contended that this is merely the carry-over from good teaching of the fundamentals in the first six grades of the elementary schools. Hence, let us look at the figures for any of the other classes; for example, the low eighth grade. Here the top section composed of children with median I.Q.'s of 113 record an average A.Q. of 107.5, and the low section, which is in this case indeed very low, having a median I.Q. of only 74, have a median A.Q. of 112 to their credit. It is a significant fact that out of the median A.Q.'s of 16 classes of approximately 40 children each, there is not one

TABLE XI

RESULTS OF STANFORD ACHIEVEMENT TESTS MADE OF SEVENTH- AND EIGHTH-
GRADE PUPILS
OKMULGEE SCHOOLS, DECEMBER, 1923

Medians	Sections of the Low Seventh Grade					
	7-1	7-2	7-3	7-4	7-5	7-6
Educational Age.....	14-7	13-9	13-6	13-2	12-8	1-3
Chronological Age.....	12-1	12-5	13-0	13-2	13-3	14-6
Intelligence Quotient.....	114	103	97	90	84	81.5
Educational Quotient....	124.5	110.3	110.5	101	95.5	90.3
Accomplishment Quotient	107	106.8	111	114	113.8	105

Medians	Sections of the High Seventh Grade					
	7-11	7-12				
Educational Age.....	14-2	12-11				
Chronological Age.....	13-1	13-10				
Intelligence Quotient.....	101	90				
Educational Quotient....	109.5	93.5				
Accomplishment Quotient	108	111.5				

Medians	Sections of the Low Eighth Grade					
	8-1	8-2	8-3	8-4	8-5	
Educational Age.....	15-7	14-3	14-3	13-10	13-6	
Chronological Age.....	13-2	13-4, 5	13-9	15-4	15-9	
Intelligence Quotient.....	113	99	96	86	74	
Educational Quotient....	119.8	108	105	89.8	87.3	
Accomplishment Quotient	107.5	109.5	110	104.8	112	

Medians	Sections of the High Eighth Grade					
	8-11	8-12	8-13	8-14		
Educational Age.....	16-4	14-8	13-9	13-10		
Chronological Age.....	13-4	13-10	14-6	14-6		
Intelligence Quotient.....	120	101	90	89.3		
Educational Quotient....	121.5	105.8	95.3	94.5		
Accomplishment Quotient	104	106.8	106	102.8		

which is not above normal. Tests similar to these were repeatedly given, and while the results varied somewhat the teaching force experienced little difficulty in keeping all the old line subjects well above standard, although offering the varied program of enrichment called for by the broadening and finding plan.

6. From the available records, a more intensive study has been made of the pupils in the Latin department. From the records of the first quarter of 1920, all four quarters of 1921, and the second and third of 1922, the following facts have been gleaned:

From the pupils in the sophomore and junior classes of 1923-24 there were 21 who took the broadening and finding course and avoided Latin. These 21 had an average I.Q. of 100. The 46 who took the broadening and finding course in English-Latin, and continued Latin had the average I.Q. of 107 and the 69 who elected Latin in high school, but who had not taken the broadening and finding course, had an average I.Q. of 103. The majority of the 69 were planning to go to colleges which required Latin for entrance, and their parents knowing that they were going to take Latin anyway, insisted upon their children taking advantage of some of the other broadening and finding courses in the seventh and eighth grades.

Of the 46 who had the Latin broadening and finding course and continued Latin, three failed the first year and one the third year, 9 per cent. Of those who failed in the broadening and finding course, none took further work in Latin. There is on record, however, one case of a failure in the broadening and finding course who chose Latin and succeeded in further work in Latin. Of the 69 who did not take the English-Latin broadening and finding course, but elected Latin in high school, sixteen or 23 per cent failed. Hence, while the number of cases is meager, the data indicate that a relatively small per cent of those who first sample Latin fail later, while of those who have not first taken the tryout work the percent of failure is large.

Over a period of four years, the failures in the entire Latin department had been reduced from 40 per cent to 6 per cent. This indicates another of the advantages of these tryout courses, namely the negative one. It is of as much worth both to the child and to the school to know that a subject cannot be followed with profit as it is to be confident that it can be pursued with success. In many instances pupils have been enabled through the medium

of broadening and finding courses to save themselves many uninteresting hours by avoiding in later years work, the sample of which was not to their tastes or suited to their abilities.

Table XII presents these facts in condensed form.

TABLE XII
EFFECT OF LATIN BROADENING AND FINDING COURSES
ON FUTURE STUDY OF LATIN

Intelligence Quotient	Latin B and F Latin Continued	No Latin B and F but High School Latin	Latin B and F Latin Not Continued
140	1		
135		1	
130			
125	2	1	1
120	1	2	
115	2	4	
110	8	7	
105	10	15	2
100	12	15	8
95	4	8	3
90	2	10	4
85	3	4	2
80	1		
75		2	1
Totals	46 (4 or 9% failed)	69 (16 or 23% failed)	21
Average I.Q.	107	103	100

7. While it has been impossible on account of the short time the experiment has been in progress to follow up with definite conclusions each boy and girl who has taken broadening and finding courses, a few individual case records are herewith presented.

(a) In the printing department four broadening and finding courses are offered during the year, one during each of the four quarters. On account of the lack of equipment only twelve pupils are enrolled at any one time.

Out of the 48 boys who took the broadening and finding course during the year 1919, the first year that a short course was offered in the printing department, 16 returned to take the vocational course in printing and journalism in the upper grades; 12 of these have been or are now employed in the printing trade, and practically all of the 12 expect to follow printing. Some of these

pupils were out of employment on account of slack business conditions at the time these case records were taken.

The case records given below are more or less typical of the case records in most of the shop work:

1. Took broadening and finding in printing in 1920, and later journalism and was graduated. Now employed as a clothing salesman.
2. Took broadening and finding in printing in 1920, and later took two years in journalism. Will be graduated this year.
3. Expelled from school in the ninth grade and moved away.
4. Left school in the ninth grade. Is not now employed.
5. Left school in his junior year. Had been employed as a printer's apprentice out of school hours, at a salary of \$16.00 per week. Is not now employed at printing trade.
6. Is still in school taking an academic course. Graduates this year.
7. Is still in school taking an academic course. Graduates this year.
8. Took broadening and finding in printing, and later one and one-half years in vocational printing. Now employed in oil fields.
9. Took broadening and finding in printing, and later vocational printing. Now employed as an automobile salesman.
10. Took a two-year vocational course in printing, and is now completing a two-year course in journalism. Has been employed in print shops for four years outside of school hours, and during vacation, starting at \$12.00 per week. Now earns \$24.00, and lacks four months of completing his apprenticeship.
11. Still in school taking an academic course. Graduates this year.
12. Took broadening and finding course in printing, and is now taking his second year of printing. At the end of the first year he was employed in printing office during summer months at \$18.00 per week.
13. Left school and moved away.
14. After his broadening and finding course in printing, took vocational printing. Has been employed in shops at \$12.00 per week. He left school, however, and is now working as an automobile driver.

15. Left school in his sophomore year, and is now employed as a clerk.
16. Still in school taking an academic course. Will graduate this year.
17. Still in his junior year at high school, continuing journalism. Worked at printing outside school hours. Started at \$10.00 per week, and is now earning \$21.00 per week.
18. After his broadening and finding course in printing, took journalism. Graduates this year.
19. Still in school taking an academic course. Graduates this year.
20. Left school in his sophomore year. Now employed in the oil fields.
21. Still in school taking an academic course. Graduates this year.
22. Left school at beginning of sophomore year after taking a broadening and finding course, to work as a printer's apprentice. Started at \$12.00 a week. Highest wages \$16.00 per week. Not now employed at printing.
23. After broadening and finding course in printing, is now taking journalism. Graduates this year.
24. Still in school taking an academic course. Graduates this year.
25. Left school in his sophomore year to work as a printer's apprentice, at \$12.00 per week. Highest wages \$14.00 per week. Is not working at printing at the present time.
26. Still in school taking an academic course. Graduates this year.
27. Graduated from school after an academic course, and is now attending preparatory school.
28. After his broadening and finding course, took vocational printing. Left school, however, and moved away.
29. After taking broadening and finding course in printing, left school in his junior year to work as a printer's apprentice. Is still employed in this line, now making \$22.00 per week.
30. After broadening and finding course, started vocational printing course. Left school, however, to work in oil fields.
31. After broadening and finding course in printing, took vocational printing. After one year moved away, and is continuing his studies in vocational printing elsewhere.

32. After broadening and finding course in printing, left school in junior year and worked as pressman on the city newspaper, starting at \$16.00 per week. After serving his apprenticeship is now making from \$45.00 to \$55.00 per week as a pressman.
33. Still in school, taking an academic course. Graduates this year.
34. Left school in the ninth grade to work in a glass plant.
35. After broadening and finding course in printing, is now taking journalism. Graduates this year.
36. After broadening and finding course in printing, is now taking journalism. Graduates this year.
37. After taking broadening and finding course in printing took a two-year course in vocational printing, and is now finishing a two-year course in journalism. Has been employed as a printer's apprentice outside of school hours at \$16.00 per week.
38. After his broadening and finding course in printing took vocational printing. Left school in sophomore year to work as a pressman apprentice at \$12.00 per week. Has made as high as \$35.00 per week, and will complete his apprenticeship in four months.
39. After taking broadening and finding course left school in his junior year.
40. Still in school taking a course in journalism after a broadening and finding course in printing. Graduates this year.
41. After his broadening and finding course took vocational printing, but left school during his first year to work on one of the town newspapers, starting at \$12.00 a week as an apprentice. He completed this, received his union card, and is now earning the printer's scale, \$50.00 to \$60.00 per week.
42. Is still in school, taking an academic course. Graduates this year.
43. Left school and moved away.
44. Left school. Unable to trace this case.
45. Still in school taking an academic course.
46. After a broadening and finding course in printing started a course in vocational printing, but left school and moved away.

47. Still in school, taking an academic course. Graduates this year.
48. Still in school taking an academic course. Graduates this year.

A summary of the cases shows that 26 moved to other schools or have dropped out; one has been graduated, and one expelled. Of the 20 remaining in school, 17 will be graduated this year and 12 of the 17 have been employed in the printing trade and expect to continue the work after graduation either in the trade or in college.

It is interesting to note that eight or ten of the boys in this class come from the very wealthiest families in the community. Some of these are interested in journalism as a profession, and all of them without exception are being graduated from our schools this year.

(b) In answer to a question presented to 15 upperclassmen in the printing department, 12 felt sure that they followed printing and journalism because they found they liked it in the broadening and finding course and 3 stated they would have taken it anyway. When this same question was handed to a larger group of 45 pupils in other shop courses, 33 indicated that the broadening and finding courses were the cause of their taking up the shopwork; 11 thought they would have taken it anyway, and 1 did not know.

Of course in all of this pupil reaction one would have to discount the influence of a faculty which believed in the system, even though pupils were urged to be very frank in their replies.

(c) We present below various case records taken by the school psychologist showing instances where, according to the students' own statements, the broadening and finding courses influenced the selection of subsequent studies. The cases presented are those of pupils from various departments and widely differing social circumstances, and mental abilities.

1. This boy left school for one year, but is making high school in three years by doing summer school work and so forth. The broadening and finding courses in first year (eighth grade) were:

Printing
Public Speaking
Commercial
Manual Training

Ninth grade broadening and finding courses (18 weeks each):

Electricity
General Science

Sophomore year:

Chemistry

Junior year:

Physics and qualitative analysis.

The science course proved to be the finding one in this case, for it has been followed by chemistry, physics and qualitative analysis.

This boy says he is very much interested in broadening and finding courses. He enjoyed electricity, manual training, and printing, but did not care for public speaking or commercial work, although he says he derived from them much general knowledge, and they helped him to know what to avoid in the future. He liked science so well that he has continued to study it each year in high school. He has earned money by working in a chemical laboratory in the town and intends to go to college, take all the chemistry he can get, and make the field of organic chemistry his life-work. He ranked seventh on Otis tests in a class of 160, and is a boy who expresses himself well, and is very definite and clear-cut in his thinking.

2. This boy took the following broadening and finding courses in the second year (eighth grade):

Manual Training
Printing
Public Speaking
Mechanical Drawing

Third year:

Printing
Journalism
Mechanical Drawing

Fourth year:

Printing
Journalism (worked on school paper)

Fifth year:

Printing and Journalism continued.

This boy is greatly interested in printing and journalism. He

discontinued public speaking and mechanical drawing because he did not care for them. This pupil has worked in local printing offices during summers and after school since his first year in junior high school. He will go to college and intends to take journalism and to make this his life-work. He says the broadening and finding courses are good and thinks the finding side is most valuable.

He was ranked fourteenth on Otis tests in class of 160, and is a boy of much animation and decisiveness.

3. This girl chose the following broadening and finding courses her first year:

Science
Cooking
Sewing
Art

and later took

General Home Economics
Advanced Cooking
Advanced Dressmaking and Millinery for
two years, and
Science for five years including:
General Science
Botany
Biology
Chemistry
Qualitative Analysis

This pupil had a previous interest in home economics, but the broadening and finding courses probably gave her a start in an interest in science. She makes her own clothes and hats, makes things for other persons, and has charge of the science library and chemistry stock room this year. She expects to enter college next year and will take a general course at first, probably continuing with science, although not with home economics. She is interested in physical education, and has taught gymnasium classes since her freshman year in high school. She has a rather negative recollection of the courses, but says she thinks they have value, for it is unfortunate when pupils can not take what they want and probably fail in subjects they do not elect.

This is a good example of a bright, energetic, capable girl, who has a multiplicity of interests, and is of a type that the broadening

and finding courses broaden rather than find. She should do equally well in a number of vocations.

4. This boy took these broadening and finding courses in his first year :

Electricity
Woodwork
Public Speaking
Commercial

Second year :

Woodwork

Third year :

Woodwork
Mechanical Drawing

Fourth year :

Mechanical Drawing

Fifth year :

Auto-Mechanics
Chemistry

He discontinued his other courses.

This boy expects to go to college, with the intention of becoming an engineer. He has earned money for the past three years by framing pictures for local firms. He says, "broadening and finding courses are good. They help one to find out what not to take, and to gain knowledge of several things, for instance electricity, which everyone should know something about." This boy's greatest interest was in woodwork.

5. This boy took broadening and finding courses in

Science
Electricity

He carried four courses of science in high school, including

General Science
Physics
Chemistry
Qualitative Analysis

He dropped electricity because he found he did not care for it. His interest in what is now his favorite subject, science, was

directed by the broadening and finding courses. He says, "I probably would not have determined my course until my sophomore or junior year if I had not had the benefit of the broadening and finding courses." He had taken all of the chemistry offered in high school by the end of his junior year. He is planning to go to college, where he wants to take chemical engineering and organic chemistry.

This is a clear cut case of a boy who found his interest turned to his future work through the broadening and finding courses.

6. This boy took the following broadening and finding courses:

Woodwork
General Shop
English-Latin
Vocational Guidance

He is taking electricity in his first year at high school.

This pupil did not like English-Latin, so did not go on with it. He did not care particularly for the shop courses, but took them for the general knowledge they would give him, and the training which would help him to do the various odd jobs around his home. He wants to be an electrical engineer, and is taking all the electricity he can get in high school. If he does not go to college, he will follow electricity as a vocation. Through his training he has been able to work in a battery station in the town and earn money. He has also operated the high school motion picture machine and radio set. He is following his high school training by doing as much outside work along the same line as he can. By taking the woodwork course he found out he did not care for it. He says, "The vocational guidance course helped me a great deal. My interest was also directed towards electricity by that course."

This boy is a consistent hard worker who has won the respect of all his teachers. He has an I.Q. of 77. He was pushed ahead on account of his age. His limited ability as well as home conditions will probably deprive him of a college education, but he will be able to earn good wages as an electrician. The fact that he was able to find himself in school will undoubtedly greatly increase his earning capacity.

7. In the first year this boy took broadening and finding courses in:

Public Speaking
Science
Bookkeeping

Second year:

Woodwork
Electricity

This boy found public speaking and science the most interesting subjects. He made the debating team in his senior year, and is now pursuing a debating course. He has followed this by taking two years of science, including chemistry and qualitative analysis, but after being in the latter class decided to drop chemistry and go into law. He did not follow up the other broadening and finding courses. He has decided to be a lawyer, and is going to college to follow this line of work.

This is an interesting example of the pupil who finds two interests which he carries through high school, and finally chooses one instead of the other. It also shows that although he elected several shop courses he knew definitely that he was not interested in them as vocations, desiring them merely to secure information. He is a large, overgrown boy, to whom the use of his hands appealed during his junior high school year.

8. This girl was doing four years' work in three, and took broadening and finding courses in

English-Latin
Commercial
Home Nursing
Science
Public Speaking
Sewing

This girl took English-Latin, because it would help her later work in Latin. She did not think she had any particular talent in public speaking, but took the course for the broadening effect it would have. She enjoyed home nursing very much, as it helped her at home. This girl arranged her courses so as to help her in her entrance examinations for Vassar, having that end in mind even in her junior high school years. She says, "I enjoyed English-Latin. It helped me in Latin."

She is a good example of the pupil of ability who takes a broadening and finding course for the help which it will give her in the work she knows she will follow later. This girl is from a wealthy family and has no idea of a "career."

9. This girl took broadening and finding courses in:

Home Nursing
Public Speaking
English-Latin
Science
Cooking
Sewing

She disliked the home economics in the broadening and finding courses, but enjoyed the home nursing. She found she really liked expression, and is now studying it outside of school, with a view to following it as a profession. She followed up the English-Latin course with two years of Latin, and intends to take up French or Spanish. She liked the public speaking course best. She expects to go to college, and plans to major in physical education and expression.

It was found that the expression or public speaking courses have real vocational value. Many pupils take this course because of a previous interest in it and find that it gives them an opportunity to determine whether they have any talent along this line.

10. This girl took broadening and finding courses in

Home Nursing
English-Latin
Music
Public Speaking

She discontinued music, and is taking piano lessons outside of school. She did not care for public speaking, and so dropped it. She found no interest in home nursing at all. She had expected to take Latin in high school, and found that the broadening and finding course in that subject aroused her interest, and helped greatly in Latin. She expects to go to college, and may teach.

This is a very bright, capable girl, and she can see the relationship between the courses she has taken and her possible future vocations clearly.

11. This girl took broadening and finding courses in:

Public Speaking
English-Latin
Home Nursing
Science
Music

She found that the broadening and finding course in English-Latin aroused her interest. She has taken three years of Latin, and expects to take Virgil next year as she likes it very much. She did not care particularly for public speaking, and did not care at all for home nursing. She enjoyed the music course, but has not followed it in school, as she is taking both piano and violin outside of school. She liked science, and as a consequence is taking nature study this year. Has taken general home economics to work off a requirement, but likes it very much, especially cooking, and is taking a year of advanced cooking. She says, "Broadening and finding courses help greatly in determining what to follow, and have been very helpful to me in planning my high school work." She expects to be a teacher and will go to college to prepare for that vocation, although she may enter the training class and teach one year before going to college.

This is a very fine example of what the broadening and finding courses do in determining subsequent studies.

12. This girl took broadening and finding courses in:

Sewing
Home Nursing
English-Latin
Science

She is taking general home economics now, and likes it very much. She will probably take advanced sewing next year. She did not care for home nursing as it was not of much benefit to her. She enjoyed science and is taking nature study now. She says, "The English-Latin broadening and finding course is fine. It gets you ready for first year Latin." This girl expects to take a teacher's training course. She says she wants to take up an art course in college.

This is an interesting case of a girl who, although exposed to the numerous courses in school, has not taken any art, the thing she seems to want to follow later as a possible life-work.

13. This girl has taken broadening and finding courses in:

Sewing
Cooking
Science
Vocational Guidance
Music
Business
Art

She did not care for science, but liked music and says that the broadening and finding course in that subject "gave me a good deal of information which I should not have received otherwise." She did not care for art or vocational guidance, but liked the business course, and thinks it did her more good than the others. She is taking up typewriting, penmanship and spelling, together with shorthand, this year. Wants to take up telegraphy too, and continue with stenographic work as well. She intends to go through a business college.

This is another good example of a girl who tried several lines and finally found the one she really liked and intends to follow it as a vocation.

14. This girl took broadening and finding courses in:

Home Nursing
Cooking
Sewing
Public Speaking
Science
Business

She also took one year of home economics, and enjoyed it. She did not care for home nursing, nor public speaking, although she thinks the latter possibly did her some good. She liked science so well that she took it for another year, and expects to follow it by taking nature study. She enjoyed the business course, which she did not take until her junior year in school. She wants to prepare to teach commercial subjects, but may do stenographic work to help herself through school.

15. This girl's broadening and finding courses were:

Sewing
Cooking
Home Nursing
Science
Business

She also took general home economics and enjoyed it, but did not go on with it. She did not care for home nursing, although she learned much from it. She did not follow science. She started to take typewriting in her sophomore year, and this year is taking that together with shorthand. She admits that the broadening and finding classes probably influenced her choice of commercial subjects. She expects to be a stenographer, and wants to go to business college before she starts to work.

8. Table XIII makes a comparison of figures presented in the *Second Annual Year Book of the Department of Superintendence* of time allotments of subjects in the seventh and eighth grades of 49 cities, with the Okmulgee figures.

A study of Table XIII shows that Okmulgee is offering in practically the same amount of time all the subjects which the forty-nine cities present and in addition is enriching her program with some six to ten activities and short courses. While it is true that not as much time in most cases is given to old line subjects by Okmulgee, nevertheless the Stanford Achievement Tests, as shown in Table XI, clearly indicate that Okmulgee pupils are well above average in the three R's. It might be argued from Table XIII that the broadening and finding courses seem to contribute more toward efficiency in the three R's than the spending of more time on them as in the case of the forty-nine cities. Someone might reply, however, that differences in drill methods might account for the conditions represented by the figures in the table.

It is safe to say that under the conditions as they existed in Okmulgee the addition of enrichment courses to the curriculum (1) has not lowered the standards in the old line subjects and (2) has not extended the time of the school day. Even during the years when Okmulgee added an extra study hour to its program, making an addition of 225 minutes a week, its children were devoting only 13 per cent more time to school work than were the children in the other forty-nine cities, and practically all extra-curricular activities, such as debating, literary societies, orchestra,

TABLE XIII

COMPARISON OF TIME ALLOTMENTS IN ALL SUBJECTS AS LISTED BY OKMULGEE
WITH THOSE LISTED BY 49 OTHER CITIES, FROM STUDY BY AYER

Subjects	SEVENTH GRADE				EIGHTH GRADE				Average Variation for Both Grades	
	Total Time Spent on Subject		Minutes More at Okmulgee	Minutes Less at Okmulgee	Total Time Spent on Subject		Minutes More at Okmulgee	Minutes Less at Okmulgee	For Okmulgee	Against Okmulgee
	At Okmulgee	At 49 Others			At Okmulgee	At 49 Others				
Presented by both Okmulgee and the 49 Others:										
Arithmetic.....	185	212	.....	27	180	211	.....	31	.....	29
Civics.....	.....	23	.....	23	45	27	18	.....	.....	5
Geography.....	60	137	.....	77	60	84	.....	24	.....	50
History.....	75	148	.....	73	120	167	.....	47	.....	60
Hygiene.....	45	25	20	.....	45	22	23	.....	21	.....
Language.....	95	207	.....	112	95	215	.....	120	.....	116
Music.....	30	70	.....	40	30	75	.....	45	.....	42
Penmanship.....	20	63	.....	43	20	58	.....	38	.....	40
Physical Training.....	180	98	82	.....	180	104	76	.....	79	.....
Reading.....	150	142	8	.....	150	136	14	.....	11	.....
Spelling.....	20	72	.....	52	20	73	.....	53	.....	52
Listed separately by Okmulgee, but probably included under other subjects by the 49 Others:										
Algebra.....	20	.....	20	.....	20	.....	20	.....	20	.....
Art.....	30	.....	30	.....	30	.....	30	.....	30	.....
Advisory Period.....	50	.....	50	.....	50	.....	50	.....	50	.....
Assembly.....	40	.....	40	.....	40	.....	40	.....	40	.....
Citizenship.....	150	.....	150	.....	60	.....	60	.....	105	.....
Geometry.....	20	.....	20	.....	25	.....	25	.....	22	.....
Listed separately by 49 Others, but included by Okmulgee under other subjects:										
Drawing.....	.....	77	.....	77	.....	79	.....	79	.....	78
Industrial Art.....	.....	90	.....	90	.....	106	.....	106	.....	98
Miscellaneous.....	.....	88	.....	88	.....	87	.....	87	.....	87
Science.....	.....	22	.....	22	.....	26	.....	26	.....	24
Supervised Play.....	.....	16	.....	16	.....	15	.....	15	.....	15
Listed separately by Okmulgee as peculiar to them:										
Activities.....	120	.....	120	.....	120	.....	120	.....	120	.....
Broadening and Finding.....	225	.....	225	.....	225	.....	225	.....	225	.....
Efficiency Hour.....	40	.....	40	.....	40	.....	40	.....	40	.....
Listed separately by Okmulgee not to be included in totals:										
Lunch Hour.....	150	.....	150	.....	150	.....	150	.....	150	.....
Listed separately by 49 Others, but not given by Okmulgee:										
Recess.....	.....	84	.....	84	.....	74	.....	74	.....	79
TOTALS										
	1,555	1,574	.....	19	1,555	1,559	.....	4	.....	.....

NOTE: A Study Hour of 225 minutes weekly was used at Okmulgee for two years. If this were added to the above figures the total time of the Okmulgee school day would be 1,780 minutes, or 13% more time than is spent in the 49 Other Cities.

band and the like, were taken care of during the Okmulgee school day, while in the forty-nine cities extra time, not listed in Table XIII, was required for such activities.

In looking back upon the last five years, the writer can see many things which would have been of value in the experiment but lack of time and often foresight left many of them undone. During the first three years it was never dreamed that the experiment would be recorded, else many other records would have been kept. It has been contended frequently through the preceding pages, that the enrichment program offered here, although finding future life work and courses of study in several and usually highly important instances, had for its chief value the effect of broadening. There is little absolutely conclusive evidence but the fact remains that even after keeping the work in the fundamentals above standard, the plan has through the medium of the broadening and finding courses exposed pupils to hundreds of life's situations, something usually neglected in the ordinary school. From the common sense viewpoint, we should have to admit that a boy who has had nine weeks in an automobile shop, nine weeks in journalism, nine more in music and nine in pre-modern languages, or a girl who has worked one quarter in art, one in sewing, one in expression and one in typewriting and stenography, would have a much broader range of information and appreciation of things cultural than would the boy or girl in the seventh or eighth grades of the average school of today. There is little doubt but that this pupil would score much higher in a range of information test than pupils who had passed through only the three R's machine.

It would also have been desirable and profitable had more use been made in this experiment of prognosis tests, even though comparatively little has been done along this line. A few tests were given in the Latin department but the results, through oversight or neglect somewhere along the line, are not available. It would be quite interesting and profitable to check up and compare the accuracy of the intelligence tests, prognosis tests and the broadening and finding courses in predicting future courses of study and vocations. Here, of course, we might plunge into an argument over the relationship of abilities and interests.

It would be the writer's contention that even though intelligence and prognosis tests should indicate ability in a certain subject, for

example Latin, it would still be necessary to determine the pupil's interest in this subject by giving him a fair sample of the work. Yet even when making this statement it must be borne in mind that usually we are interested in the things that we can do well, and can do well the things in which we are interested.

On account of the tremendous importance of placing each individual in that work which his abilities and interests dictate as the field in which he will be most successful and happy, it should behoove every school system to use every available means of determining both these abilities and interests. It is to be hoped that rapid strides will be made soon in the developing and perfecting of prognosis tests as well as broadening and finding courses, in order that the public school may have available not only accurate and non-time-consuming measures of ability and predictors of success, but interest indicators as well. The broadening and finding courses might well be named the interest barometers of secondary education.

In the opinion of the writer this work in the high schools should be only a beginning. Our metropolitan newspapers during the past twelve months have carried extensive comments upon the statements of certain college and university presidents that too many pupils were going to college and attempting higher education. In the cases of those pupils having low-intelligence quotients the contention of these university leaders must be granted. It is conceivable, however, that a scheme could be evolved whereby even our higher institutions of learning might begin to think of the problems of having their curricula more nearly conform to the needs of the students applying for admission rather than compelling these students to fit into their more or less inflexible programs. If a course of study could be worked out for college freshmen wherein they were given, first, a course in English where they were taught to speak and write correctly their mother tongue; second, a thorough course in citizenship, and third, a series of short courses from various fields wherein the college freshman could get a glimpse of what would be offered in case he entered law or medicine or theology or business, quite an improvement would be made.

If it were possible for a freshman to be shown, even though superficially in a nine-weeks course of an hour or more a day, the possibilities and the drawbacks of the medical profession or of

engineering or of any other business or profession, the writer feels positive that there would be fewer college failures and more successes in the life which follows. This scheme could not be put into effect in any short space of time, for the heads of various departments will continue to attempt to force into every curriculum for freshmen a unit or more of their particular subject.

Many of our institutions of higher learning are beginning through tests to attempt to determine the mental abilities of their freshmen, but very little or nothing has been done to provide for him opportunities through first-hand knowledge to indicate to what businesses or professions his interests might lead. Until our schools from the seventh grade on through the universities begin by properly enriched curricula to make it possible for a student to select with intelligence the business or profession for which Nature has best fitted him, we shall continue to have square pegs in round holes both in the higher schools and in life.

The remedies which have been suggested have their shortcomings. They seem to the writer, of course, to comply with the laws of the psychology of common sense and it is hoped that in the near future, schemes similar to the one presented here will be tried on an extensive scale in some of the junior high schools of America as well as in some of our institutions of higher learning. The carrying out of the provisions of this scheme would require much time, a great amount of effort and a breaking down of traditions, but when we consider the advantages both to the individual and to society of having each employed at that work in which he is happiest and hence from which he secures the most results, we are brought face to face with the conclusion that the time, thought, and money necessary to give any scheme which might even approximate the desired results a real trial would be worthily invested.

CHAPTER VII

SUMMARIES AND CONCLUSIONS

1. AN experiment, even though relatively comprehensive, can be carried out in a public school situation without interfering with the regular work of the school system.

2. Such an experiment, to be successful, must be carefully planned, and the public, school board, faculty and pupils should be carefully educated as to its purposes and methods.

3. A study of the conclusions of all the writers in the field on seventh and eighth grade curricula, reveals almost universal agreement that the programs of these grades should be greatly enriched.

4. There are many present attempts at enrichment, but most of these produce only awkward and wasteful schemes.

5. Broadening and finding courses, which, although consisting of material in itself worth while, present samples of both future courses of study and vocations, are proposed as the best means of enriching the seventh and eighth grade work. These should be supplemented by numerous leisure-time activities offered from every field and by every department.

6. A five-year use of such courses in the public school system of a typical American city of 25,000 population, seems to leave the following evidences of desirability:

- a. Almost universal and enthusiastic confidence and active support of the board of education, the public, the faculty, and the pupils have been secured and held.
- b. School mortality has been materially lowered, the power of retention in the junior high school having been increased 45 per cent and that of the high school 55 per cent.
- c. In spite of the fact that numerous enrichment features were introduced into the program, the work of the pupils in the old line subjects was kept far above standard, as was indicated by the achievement tests which were frequently applied.

7. The *finding power* of these courses is attested to by:

- a. The great reduction in failures in such courses as Latin (see Table XII and contiguous pages).
- b. The number of pupils who are successfully and happily engaged in vocations discovered through the media of the broadening and finding courses.
- c. The large number of pupils who seem to have made the proper selections and found through the short courses those senior high school studies which appear to be most suited to their needs, interests, and abilities.

8. While in many cases the *finding power* proves of little known value from the vocational standpoint, the program is more than justified by (a) the broadening and cultural effect it has on the pupils in the seventh and eighth grades and (b) the more intelligent selection of future courses of study it enables them to make.

9. Although the cases where pupils have definitely found their life work are comparatively few, the importance of this successful placing must not be under-estimated.

10. The administration of a program, such as that described in the foregoing pages, is neither difficult nor intricate.

11. The per-pupil cost of the broadening and finding work is no more than that of the regular courses, and can be held to a lower figure.

12. Broadening and finding courses of study should be published and made widely available in the very near future, for the need is urgent.

13. Teachers colleges should offer special courses for the training of teachers in the exploratory work of the junior high school grades.

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